BOREHOLE NUMBER BH2/3/001

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316452 N:683055
DATE STARTED 1/11/12 **COMPLETED** 1/11/12
GROUND ELEVATION (mAOD) 5.489 m **HOLE SIZE** 150mm
DRILLING CONTRACTOR GTS
GROUND WATER LEVELS:
DRILLING METHOD Cable percussion
AT TIME OF EXCAVATION ---
LOGGED BY NEWSC
AT END OF DRILLING ---
MAIN AXIS ORIENTATION N/A
AFTER DRILLING 1.28 m / Elev 4.21 m

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION		WELL DIAGRAM
	70-80					MADE GROUND: TOPSOIL.		
						0.30	5.19	
						MADE GROUND: Dense brown black very sandy GRAVEL. Gravel is fine to coarse angular to subrounded of brick, sandstone and clinker.		
1		70-80						
2		80-100						
3		70-85				3.00	2.49	
						MADE GROUND: Soft grey brown sandy gravelly CLAY. Gravel is fine to coarse angular to subrounded of sandstone		
4		70-80				4.00	1.49	
						MADE GROUND: Soft grey brown/blue sandy gravelly CLAY. Gravel is fine to medium subangular to subrounded of sandstone.		
						4.50	0.99	
5		70-80				MADE GROUND: Soft grey brown sandy gravelly CLAY. Gravel is fine to coarse angular to subrounded of sandstone. Hydrocarbon odour.		
						5.20	0.29	
6		60-80				Dense grey brown sandstone GRAVEL.		
						6.00	-0.51	
						Borehole terminated at 6.0m bgl.		

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.

BOREHOLE NUMBER BH2/3/002

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316473 N:683059
DATE STARTED 29/10/12 **COMPLETED** 29/10/12
GROUND ELEVATION (mAOD) 5.064 m **HOLE SIZE** 150mm
DRILLING CONTRACTOR GTS
GROUND WATER LEVELS:
DRILLING METHOD Cable percussion
AT TIME OF EXCAVATION ---
LOGGED BY NEWSC
AT END OF DRILLING ---
MAIN AXIS ORIENTATION N/A
AFTER DRILLING ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
						0.10 MADE GROUND: TOPSOIL. 4.96	
						MADE GROUND: Soft black brown sandy gravelly CLAY. Gravel is fine to coarse angular to subrounded of sandstone and brick.	
						0.80 4.26	
1						Chiselling on concrete boulder no recovery.	
						1.24 3.82	

Borehole terminated at 1.24m bgl due to concrete boulder.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Borehole moved to BH2/3/002 due to obstruction.

BOREHOLE NUMBER BH2/3/002a

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316472 N:683058
DATE STARTED 29/10/12 **COMPLETED** 29/10/12
GROUND ELEVATION (mAOD) 5.169 m **HOLE SIZE** 150mm
DRILLING CONTRACTOR GTS
GROUND WATER LEVELS:
DRILLING METHOD Cable percussion
AT TIME OF EXCAVATION 4.60 m / Elev 0.57 m
LOGGED BY NEWSC
AT END OF DRILLING ---
MAIN AXIS ORIENTATION N/A
AFTER DRILLING 1.24 m / Elev 3.93 m

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION		WELL DIAGRAM
		80-95				MADE GROUND: Soft black brown sandy gravelly CLAY with occasional cobbles. Gravel is fine to coarse angular to subrounded of brick and sandstone.		
							4.67	
1		70-80				MADE GROUND: Soft black/grey brown sandy gravelly CLAY. Gravel is fine to coarse angular to rounded of sandstone and mudstone.		
							3.77	
2		70-80				MADE GROUND: Soft black brown sandy gravelly CLAY with frequent cobbles. Gravel is fine to coarse subrounded of sandstone, brick and concrete. Cobbles of concrete.		
							3.17	
3		70-80				MADE GROUND: Dense cobbles of concrete, sandstone in sift black brown sandy gravelly CLAY. Gravel is coarse angular of concrete.		
4		70-80						
5		70-80						
							0.87	
						MADE GROUND: Loose black brown sandy fine to coarse subangular to subrounded GRAVEL fo concrete, sandstone and mudstone. ... at 4.6m bgl water strike.		
							0.17	
6		70-80				Dense brown/grey/black very sandy GRAVEL with occasional cobbles. Gravel is fine to coarse angular to sounded of sandstone and mudstone. Cobbles of sandstone.		
							-1.13	
		70-80				Soft grey black sandy gravelly CLAY. Gravel is coarse angular to subrounded of sandstone.		
							-1.73	

Borehole terminated at 6.9m bgl due to refusal on rock.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Groundwater strike at 4.6m bgl.

BOREHOLE NUMBER BH2/3/003

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316457 N:683067
DATE STARTED 30/10/12 **COMPLETED** 1/11/12
GROUND ELEVATION (mAOD) 5.303 m **HOLE SIZE** 150mm
DRILLING CONTRACTOR GTS
GROUND WATER LEVELS:
DRILLING METHOD Cable percussion
AT TIME OF EXCAVATION ---
LOGGED BY NEWSC
AT END OF DRILLING ---
MAIN AXIS ORIENTATION N/A
AFTER DRILLING 1.30 m / Elev 4.00 m

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0						0.20 MADE GROUND: Dark brown clayey sandy silty TOPSOIL with a little fine to coarse angular to subrounded gravel and occasional brick fragment. 5.10	
	10000	3000	RAD	300&200		MADE GROUND: Dark grey and red brown sandy ASH and clinker GRAVEL with metal fragments and brown glass.	
		700					
1		700					
		700					
		800					
		800					
		750					
2		750					
		600					
						2.60 2.70	
3						MADE GROUND: Dark orange brown sandy gravelly CLAY with occasional sandstone cobbles. Gravel is fine to coarse angular to subrounded of sandstone and brick with occasional metal.	
						3.20 2.10	
		600				MADE GROUND: Soft black brown sandy gravelly CLAY. Gravel is fine to coarse angular to subrounded of brick and sandstone with occasional pieces of metal. 1.80	
		400				Hydrocarbon odour.	
4						Soft orange brown sandy gravelly CLAY. Gravel is fine to coarse angular to subrounded with frequent pieces of metal. 1.10	
						4.20	
						Grey brown SANDSTONE.	
5							
6						6.00 -0.70	

Borehole terminated at 6.0m bgl.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Made ground soil arisings 19 bulk bags, approx 20kg each, sent to AWAF.

BOREHOLE NUMBER BH2/3/004

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316504 N:683165
DATE STARTED 1/11/12 **COMPLETED** 1/11/12
GROUND ELEVATION (mAOD) 4.128 m **HOLE SIZE** 150mm
DRILLING CONTRACTOR GTS
GROUND WATER LEVELS:
DRILLING METHOD Cable percussion
AT TIME OF EXCAVATION 2.60 m / Elev 1.53 m
LOGGED BY NEWSC
AT END OF DRILLING ---
MAIN AXIS ORIENTATION N/A
AFTER DRILLING 2.04 m / Elev 2.09 m

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION		WELL DIAGRAM
1		70-80				MADE GROUND: Soft brown and black sandy gravelly CLAY. Gravel is fine to coarse angular to rounded of brick, sandstone. Cobbles of brick and sandstone.		
2		70-80						
						2.00	2.13	
						2.20 Brown/yellow sandy fine to coarse angular to rounded GRAVEL with frequent cobbles.	1.93	
3		70-80				Grey brown SANDSTONE. ... at 2.6m bgl water strike.		
						3.00	1.13	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Groundwater strike at 2.6m bgl.

BOREHOLE NUMBER BH3/3/005

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316436 N:683249
DATE STARTED 2/11/12 **COMPLETED** 2/11/12
GROUND ELEVATION (mAOD) 3.787 m **HOLE SIZE** 150mm
DRILLING CONTRACTOR GTS
GROUND WATER LEVELS:
DRILLING METHOD Cable percussion
AT TIME OF EXCAVATION 1.70 m / Elev 2.09 m
LOGGED BY NEWSC
AT END OF DRILLING ---
MAIN AXIS ORIENTATION N/A
AFTER DRILLING 1.89 m / Elev 1.90 m

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION		WELL DIAGRAM
	70-80					0.10 MADE GROUND: TOPSOIL.	3.69	
1		80-90				MADE GROUND: Black brown ashy gravelly SAND. Gravel is fine to coarse angular to subrounded of sandstone, brick, clinker and pottery.		
2		70-80				1.80 ... at 1.7m bgl water strike.	1.99	
						MADE GROUND: Dense black sandy GRAVEL. Gravel is fine to coarse angular to subrounded of sandstone, brick, metal and plastic.		
						2.40	1.39	
3		80-90				Dense grey/yellow gravelly fine to coarse SAND with frequent cobbles. Gravel is fine to coarse subrounded of sandstone.		
						3.00	0.79	
						Borehole terminated at 3.0m bgl.		

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Groundwater strike at 1.7m bgl.

BOREHOLE NUMBER BH6/2/006

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316337 N:683309
DATE STARTED 5/11/12 **COMPLETED** 5/11/12
GROUND ELEVATION (mAOD) 3.403 m **HOLE SIZE** 150mm
DRILLING CONTRACTOR GTS
GROUND WATER LEVELS:
DRILLING METHOD Cable percussion
AT TIME OF EXCAVATION 2.10 m / Elev 1.30 m
LOGGED BY NEWSC
AT END OF DRILLING ---
MAIN AXIS ORIENTATION N/A
AFTER DRILLING 2.61 m / Elev 0.79 m

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION		WELL DIAGRAM
	65-80					MADE GROUND: Loose grey brown gravelly coarse SAND. Gravel is fine to coarse subrounded of sandstone.	3.10	
1		65-80				MADE GROUND: Loose dark brown gravelly ashy SAND. Gravel is fine to coarse angular to subrounded of brick and sandstone.		
						1.60	1.80	
2		70-80				Loose silty gravelly SAND. Gravel is fine to coarse subrounded of sandstone.	1.50	
						1.90		
						Soft grey blue sandy gravelly CLAY. Gravel is coarse subrounded of sandstone. ... at 2.1m bgl water strike.		
						2.50	0.90	
3						Grey SANDSTONE.		
		70-80				3.00	0.40	
						Borehole terminated at 3.0m bgl.		

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Groundwater strike at 2.1m bgl.

TRIAL PIT NUMBER TP1/1/007

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316461 N:683085
DATE STARTED 26/10/12 **COMPLETED** 26/10/12
GROUND ELEVATION (mAOD) 5.395 m **TEST PIT SIZE** 4.0m x 0.6m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION SW-NE
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
		80				0.10 MADE GROUND: Grass over light brown coarse SAND (SW half of pit). Compacted GRAVEL (NE half of pit). 5.30
	325-600	90-160				MADE GROUND: Dark grey to black sandy silty gravelly ASH and angular fine to coarse clinker fragments, rare asbestos tile. Pottery encountered in black ash 'GVIR' (George VI Regina) dated 1944.
	400-450	400	RAD	600&1100		.... Two radioactive point sources identified at 0.5m bgl. (A) 900 cps point source, dose rate with SEPA RT30 403.6nSv/hr, identified Radium 226. (B) 600cps point source 322.22nSv/hr.
	400-500	130-180				.... some glass, metal, brick at 0.6m bgl. Possible copper pipe (green staining).
	400-500	150-250				.... inclusions of yellow-brown clay at 0.8m bgl.
1						
	400-700		RAD	80		.... light grey sandy ash and fragments of wire, pipe at 1.1-1.5m bgl. in SE wall of pit.
	400-500		RAD	1100		.... pipework 1100 cps - possible active point source encrusted onto burnt pipe at 1.4m bgl. Pipe is 0.5m length, 10mm diameter. RT30 identified Ra-226.
	400-500	160				.... thickened glass fragment (3 panes fused together 30mm total thickness) and metal pipes at 1.5m bgl.
2						
	420	140-200				
		160-200				2.80 .... much red-brown ash, with brick and clinker gravel at 2.7m bgl. 2.60
		100-160	RAD	90		Trial pit terminated at 2.80m bgl due to obstruction possible bedrock.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP1/1/008

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316452 N:683050
DATE STARTED 25/10/12 **COMPLETED** 25/10/12
GROUND ELEVATION (mAOD) 5.381 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NNW-SSE
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	50-90	50-60				0.15	MADE GROUND: Grass over brown sandy SILT and fine to coarse angular to subrounded GRAVEL.	5.23
	70-90	50-65					MADE GROUND: Light brown sandy fine to coarse angular to subrounded GRAVEL. Occasional limpet shell, rounded cobbles of sandstone and fragments of earthenware drain.	
	50-60	90-100	RAD	53		0.45		4.93
	90-125						MADE GROUND: Soft brown slightly clayey sandy SILT and fine to coarse angular to subrounded GRAVEL, becoming silty CLAY with depth. Fragments of metal strap and plastic wrapping. Boulders of subrounded sandstone, whole and half bricks, rare wood and plastic fragments.	
	90-160	50-65						
	130-150	70-90						
1								
	150-190	70-100						
							... at 1.3m bgl plastic bag fragment with writing "wrap 'em up".	
		70-100						
	200-230	60-90	RAD	55				
							... at 1.8m bgl many boulders of buff medium grained sandstone, black pipe fragment.	
		70-90						
2						2.00	... at 2.0m bgl rare pottery fragment.	3.38
	140	60-80					Trial pit terminated at 2.0m due to pit instability.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.
5. Pit walls unstable.

TRIAL PIT NUMBER TP2/1/009

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316441 N:683061
DATE STARTED 25/10/12 **COMPLETED** 25/10/12
GROUND ELEVATION (mAOD) 5.593 m **TEST PIT SIZE** 3.3m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NW-SE
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	100-120					0.25	MADE GROUND: Grass over brown sandy gravelly SILT. Gravel is fine to coarse angular to subrounded. Occasional pottery, brick and ash (0.2-0.25m).	5.34
	90-150							
	140-200	80-130						
	150-200	90-100	RAD	85		0.45	MADE GROUND: Loose black sandy ash and angular clinker GRAVEL, occasional pottery fragments and cable casing and off-cuts.	5.14
	150-230	90-150					... at 0.4m bgl pockets of light grey ash.	
	180-300	80-130	RAD	100		0.55	MADE GROUND: Brown slightly clayey sandy gravelly SILT.	5.04
	200-300						MADE GROUND: Loose grey ash and angular clinker GRAVEL. Occasional fragments of pottery, decayed blue-green battery remnants, screws, plastic bolts and rare wood and wire.	
1							Pottery 'T.C. Green & Co Pottery Ltd', Church Gresley, Made in England with anchor insignia. Grey bottle - labelled 'Younger'	
	200-300	90				1.15		4.44
		100-125					MADE GROUND: Black ASH intermixed with pockets of brown sandy clayey SILT.	
						1.50		4.09
	574		RAD	1100			MADE GROUND: ASH intermixed with pockets of brown/orange brown and grey brown sandy silty CLAY. Rare bone and wood fragments.	
						1.80	... at 1.5m bgl RT30 downhole 574cps at north end of pit. 3 No. point sources recovered from ashy layer 1100cps identified radium-226, 528nSv/hr.	3.79
2		90-120	RAD	90			... at 1.8m bgl pottery fragment with NAAFI insignia.	
							Soft greenish brown clayey SILT with decayed plant remains (Estuarine alluvium).	
	200	130-180					becoming greenish grey sandy SILT with bands of dark grey organic peaty SILT/silty PEAT.	
3								
		70-90						
						3.50		2.09
			RAD			3.60	Buff yellow brown medium SANDSTONE (Bedrock).	1.99

Trial pit terminated at 3.6m bgl due to bedrock.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.
5. Slight instability 1.0m-1.8m.

TRIAL PIT NUMBER TP2/1/010

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316464 N:683116
DATE STARTED 6/11/12 **COMPLETED** 6/11/12
GROUND ELEVATION (mAOD) 5.836 m **TEST PIT SIZE** 0.5m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Hand Pit
AT TIME OF EXCAVATION ---
LOGGED BY NEWSC
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N/A
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
		80-90				MADE GROUND: Medium dense sandy GRAVEL. Gravel is fine to coarse angular to subrounded of sandstone, concrete, glass with cobbles and boulders of sandstone. Fragment of metal.
		80-90				
		70-80				
1			RAD	70-80		
		70-80				
1.20						4.64

Hand pit terminated at 1.2m bgl.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP2/1/011

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316429 N:683082
DATE STARTED 24/10/12 **COMPLETED** 24/10/12
GROUND ELEVATION (mAOD) 6.118 m **TEST PIT SIZE** 2.3m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION WNW-ESE
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
	60-125		RAD	70		MADE GROUND: Dark grey brown sandy ashy gravelly TOPSOIL. Gravel is fine to coarse angular to subrounded with rare glass, tile and terracota drainpipe fragments. Becoming dark grey gravelly ashy silty SAND.
	70-160					... from 0.2m bgl much dark grey ash and fine clinker gravel in south end of pit with roots and rootlets. Rare asbestos tile and glass container fragments. Pottery with blue colouration and decoration.
						... at 0.3m bgl blue ribbed glass bottle fragments.
	80-100	60-80	RAD	60		... at 0.5 m bgl decorative (domestic) pottery fragment.
		60-80				
1						1.00 ... glass stopper. 5.12
		60				MADE GROUND: Buff sandy sandstone cobbles and occasional angular fragments of brick.
		60-80				
		60-80				1.90 4.22
2						Greenish brown SAND.
		60-80				
		60-80				2.45 3.67
		60-80				2.50 Buff and orange brown silty medium SAND. (Weathered sandstone). 3.62 Trial pit terminated at 2.5m bgl.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.
5. Pit unstable in made ground.

TRIAL PIT NUMBER TP2/1/012

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316415 N:683057
DATE STARTED 23/10/12 **COMPLETED** 23/10/12
GROUND ELEVATION (mAOD) 6.005 m **TEST PIT SIZE** 3.4m x 0.6m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION E-W
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION	
		75-90				MADE GROUND: Grass over grey silty sandy TOPSOIL with ash and clinker gravel. Occasional cement bonded asbestos tile fragment, rare bricks and sandstone boulders. Occasional glass bottle and pottery fragment. Count rates locally up to 150cps. ... at 0.3m bgl plastic confectionary wrapper and plastic decorative lining. Stone boulders up to 0.4m diameter.	
		75-85	RAD	150			
		90-110					
		60-70					
		85-100					
1		75-85					
		70-80					
		45-60					
0.50							5.51
						MADE GROUND: Brown sandy fine to coarse subangular GRAVEL and possible light grey sandy weathered mortar. Cobbles and boulders of sandstone.	
0.90							5.11
						Dark brown silty coarse SAND.	
1.20							4.81
1.21						Grey brown SANDSTONE.	4.80
						Trial pit terminated at 1.21m bgl due to bedrock.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.
5. Made ground dips from 0.8m bgl to 0.9m bgl west to east.
6. Pit extended eastwards to form TP2/1/012B.

TRIAL PIT NUMBER TP2/1/012B

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316419 N:683057
DATE STARTED 23/10/12 **COMPLETED** 23/10/12
GROUND ELEVATION (mAOD) 6.055 m **TEST PIT SIZE** 3.1m x 0.6m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION E-W
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	80-150		RAD			0.30	MADE GROUND: Grass over dark grey silty sandy ashy TOPSOIL and much ash and clinker gravel.	
	100-120						80% ash and clinker at eastern end of pit (120-150cps) extending to 1.2m bgl in eastern face.	5.76
	90-100					0.45	MADE GROUND: Dark greenish brown silty medium to coarse SAND and fine to medium subangular GRAVEL.	5.61
	80-90		RAD	75-80			MADE GROUND: Yellowish brown silty SAND and medium to coarse angular sandstone GRAVEL. Some whole bricks, brick fragments and sandstone cobbles and boulders.	
1		60-70				1.20	... at 1.1m bgl whole bricks.	4.86
		50-70					Brown silty medium SAND. ... from 1.4m bgl becoming orange brown.	
		50-70				1.75		4.31

Trial pit terminated at 1.75m bgl.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.
5. Extension eastwards of TP2/1/012.

TRIAL PIT NUMBER TP2/1/013

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316423 N:683039
DATE STARTED 24/10/12 **COMPLETED** 24/10/12
GROUND ELEVATION (mAOD) 5.790 m **TEST PIT SIZE** 3.2m x 0.6m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NNW-SSE
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	70-85							
	100-145		RAD	50-60			MADE GROUND: Grass over dark brown silty sandy TOPSOIL with medium to coarse angular to subrounded gravel. Fragments of brick, shatterproof glass, pottery and rare asbestos sheeting.	
	80-140					0.30	Much black ash in north end of pit with clinker gravel (100-145cps).	5.49
	160-170						MADE GROUND: Brown clayey GRAVEL with angular tile fragments and subrounded medium to coarse clinker. Black clinker and ash at south end of pit (160-170cps). ... at 0.5m bgl 'Lochside' brick.	
	150-180		RAD	60				
1								
	180-190					1.20		4.59
	160-180						Buff/yellow brown medium SANDSTONE.	
	160-180					1.90		3.89

Trial pit terminated at 1.9m bgl due to bedrock.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP2/1/014

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316408 N:683031
DATE STARTED 23/10/12 **COMPLETED** 23/10/12
GROUND ELEVATION (mAOD) 5.440 m **TEST PIT SIZE** 3.1m x 0.6m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NNW-SSE
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION	
	50-60					MADE GROUND: Grass over dark grey-brown sandy ashy gravelly TOPSOIL. Whole and broken brick fragments, some clinker gravel and occasional pottery fragments. Rare asbestos cement bonded tile.	
0.20	65-85						5.24
	75-85		RAD	45		Loose grey-brown silty medium SAND and fine to coarse angular to subrounded GRAVEL.	
0.30	60-70		RAD	60-70			5.14
	50-65		RAD	50-65		Brown/orange brown silty medium SAND and angular medium to coarse fragment of sandstone GRAVEL.	
						... from 0.6m bgl difficult excavation. Becoming orange brown medium sandstone, local ferringous dark orange staining.	
0.80	60-65						4.64
	40-50					Trial pit terminated at 0.8m bgl due to bedrock.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP2/2/015

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316457 N:683087
DATE STARTED 26/10/12 **COMPLETED** 26/10/12
GROUND ELEVATION (mAOD) 6.050 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NW-SE
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION	
	120-160	80-90				MADE GROUND: Grass over dark brown sandy CLAY and fine to coarse angular to subrounded GRAVEL and fragments of brick. Occasional clinker and angular sandstone boulders.	
	200-275	80-90	RAD	98		... at 0.1m bgl plastic wrapper dated 1976.	
						MADE GROUND: Loose dark grey/brown and light grey ASH and angular clinker gravel, burnt shale and sandstone.	
	200-475	80-100					
	380-490	150	RAD	90			
1							
		200				MADE GROUND: ASH becoming bright red with angular fragments of possible cement bonded asbestos. Occasional glass and metal fragments. Plate at 1.0m bgl 'Wedgewood & Co' dated 1944	
	380-480	200				... at 1.5m bgl circular electrical component bakelite housing 'Patent No 209653'.	
						MADE GROUND: Grey ASH with much clinker gravel many fragments of broken pottery. Occasional tile, brick and metal.	
2							
			RAD	408		... from 2.0m bgl burnt corrugated tin sheets, plate dated 1944, metal pipe and corrugated possible cement bonded asbestos sheet. Red clinker artefact, 0.01m diameter, from 2.0m bgl identified at radium-226 304.5nSv/hr.	
		270-600					
		150-180	RAD	5260		... blue green clinker artefact from 2.7m bgl identified radium-226 dose rate 3.5uSv/hr.	
3		160-190	RAD				
		160-180					
		200-340					
		140				Greenish grey sandy CLAY and fine to coarse subangular to subrounded GRAVEL. Boulders of buff fine to medium grained sandstone. (Estuarine deposits/disturbed alluvium).	
		120				Trial pit terminated at 3.8m bgl due to obstruction, possible bedrock.	

0.20 — 5.85
1.00 — 5.05
1.70 — 4.35
3.70 — 2.35
3.80 — 2.25

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.
5. Pit walls slightly unstable in made ground.
6. Final spoil heap dose rate 81.5nSv/hr identified radium-226.

TRIAL PIT NUMBER TP2/2/016

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316445 N:683081
DATE STARTED 29/10/12 **COMPLETED** 29/10/12
GROUND ELEVATION (mAOD) 6.970 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N-S
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION	
	300						
	300-3000						
	300-2500		RAD	230&300			
	300-2800	300-1200					
			RAD	100			
	450-650	250-500					
1	350-400	250-320					
	320-600	160-200					
			RAD	88			
2							
	130-170	80-110					
			RAD	84			
		80-110					
3							
			RAD	90			

0.25 — MADE GROUND: Grass over brown clayey sandy SILT and fine to coarse angular to subrounded GRAVEL with occasional brick, metal nails and tile. — 6.72

MADE GROUND: Loose dark grey ASH and clinker GRAVEL with occasional wire, glass, pottery and metal. Light blue weathered battery remnants.
Count rates 300-2800 cps distributed throughout ash.

0.70 — ... activity rates dropping below 0.6m. (450-650 cps). — 6.27

MADE GROUND: Greenish brown sandy clayey SILT and bands of light grey ash and clinker gravel. Bands dipping 30° down to north.

2.50 — 4.47

Greenish brown silty CLAY/clayey SILT, locally organic, fibrous with decaying rootlets and black mottling. (Estuarine alluvium).

3.05 — 3.92

Greenish grey medium to coarse SAND.

3.25 — 3.72

Trial pit terminated at 3.25m bgl.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.
5. Final count rate at surface 80-130cps.

TRIAL PIT NUMBER TP2/2/017

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316432 N:683095
DATE STARTED 25/10/12 **COMPLETED** 25/10/12
GROUND ELEVATION (mAOD) 7.117 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION E-W
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
	70-90	70-90				MADE GROUND: Grass over drak brown silty CLAY and fine angular to subrounded GRAVEL. Occasional root fragments.
	85-95	85-95				
0.30						
	90-120	70-80				MADE GROUND: Loose medium brown silty SAND and fine to coarse angular GRAVEL. Some cobbles, paving slab fragments, plastic fragments 'Choco... Milk' labelling on plastic and vitreous bitumen fragment.
1						
	150-175	80-90				
	160-200	80-90				... from 1.3m bgl whole bricks 'Wellwood' (possible relict structure).
1.70						5.42
	180-200	80-90	RAD	90		... at 1.7m bgl glass bottle.
						MADE GROUND: Brown medium to coarse silty SAND and GRAVEL. Gravel is angular to subrounded with occasional cobbles of brick.
2						
	150	70-100				
		80-90				
2.90						4.22

Trial pit terminated at 2.9m bgl.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.
5. Pit walls unstable throughout.
6. Measurments taken from east face.

TRIAL PIT NUMBER TP2/3/018

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316465 N:683064
DATE STARTED 30/10/12 **COMPLETED** 30/10/12
GROUND ELEVATION (mAOD) 5.045 m **TEST PIT SIZE** 3.0m x 1.0m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION E-W
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
	60-80					MADE GROUND: Grass over dark brown sandy silty TOPSOIL.
	70-95					0.20 4.85
	80-120	70-90				MADE GROUND: Dark brown sandy SILT and fine to coarse angular to subrounded gravel, cobbles and boulders of mixed lithology. Sandstone, concrete, slate, earthenware pipe, tarmac fragments and metal guttering supports. Concrete slabs 80mm thickness up to 1m across
	100-160	70-90				
	100-140	70-90				
			RAD	60		
1						
	100-140	70-90				
	100-140	70-90				
	100-140	70-90	RAD	65		... from 1.8m bgl many cobbles of clinker
2						2.00 3.05
	140-160	70-90				... at 2.0m bgl coke can. Trial pit terminated at 2.0m bgl due to collapse.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP2/3/019

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316467 N:683079
DATE STARTED 26/10/12 **COMPLETED** 26/10/12
GROUND ELEVATION (mAOD) 5.198 m **TEST PIT SIZE** 3.0m x 1.0m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION E-W
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
	70-80	55-95				MADE GROUND: Grass over dark brown sandy SILT/silty SAND and gravel, cobbles, occasional boulders of angular sandstone.
0.20						
	80-90	70-80				MADE GROUND: Light brown SAND and fine to coarse angular sandstone gravel, cobbles and boulders, occasional tile. Boulders up to 0.6m diameter. Metal eye fixed to sandstone boulder.
	65-75	60-75	RAD	75		... at 0.7m bgl plastic disposable lighter.
1						
	70-80	50-60				... shaped stone boulders (demolition rubble), metal lock mechanism, rounded metal pipe, wooden plank remnant (0.6m x 0.1m x 10mm), guttering bracket.
	90	60-80				
2						
5.00						
2.00						
3.20	70-80	60-80				Trial pit terminated at 2.0m bgl due to collapse.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP2/3/020

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316460 N:683052
DATE STARTED 30/10/12 **COMPLETED** 30/10/12
GROUND ELEVATION (mAOD) 5.109 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N-S
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	60-80	60-80						
	80-115	60-80				0.20	MADE GROUND: Grass over brown clayey SILT and fine to coarse angular to subangular GRAVEL. Sandstone and occasional tile fragments.	4.91
	90-130	60-90	RAD	65		0.40	MADE GROUND: Light brown coarse SAND with fine subangular gravel and limpet shells. Pockets of dark grey ash, clinker and burnt shale.	4.71
	90-130	60-80					MADE GROUND: Dark brown clayey sandy SILT with fabric (old shorts), plastic bag, possible asbestos cement tile fragments (burnt), tarmac, kerbstone and slabs.	
	110-150	60-80					Possible tipping face sloping from north to south.	
			RAD	71			... at 0.8m bgl crisp bag 'best before July 1987'. Concrete boulder 0.4m x 0.9m x 0.26m.	
	110-160	60-80						
1							... concrete with brick aggregate and structure 1.0m x 0.5m x 0.3m.	
	110-150	60-80	RAD	300			... clinker artefact at 1.05m bgl, identified radium-226 dose rate 120nSv/hr	
	150-236	70-90						
							... at 1.5m bgl possible drain orientated north-south.	
						1.70		3.41
	170	70-90				1.90	MADE GROUND: Brown sandy CLAY with much fine to coarse angular gravel, cobbles and boulders of mixed lithology. Many bricks 'Lochside', occasional metal, rounded quartzite, wood, ceramic pipe and tarmac.	3.21
			RAD	70			Light brown clayey SILT in north of pit. Trial pit terminated at 1.9m bgl due to collapse.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.
5. RT30 identified potassium-40 at 1.9m bgl.

TRIAL PIT NUMBER TP2/4/021

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316434 N:683073
DATE STARTED 24/10/12 **COMPLETED** 24/10/12
GROUND ELEVATION (mAOD) 6.083 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION E-W
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION	
	80-130					MADE GROUND: Grass over dark grey sandy gravelly ASH. Gravel is fine to coarse angular to subrounded clinker. Fragments of pottery, wire, metal, gaskets and rubber rings. Cobble sized orange brown and pale blue green clinker.	
	110-170		RAD	92			
	130-190	100-120					
	100-160	80-90					
0.40						190cps at western end of pit. 130cps at eastern end of pit.	5.68
						... at 0.3m bgl blue green fragment of weathered battery plate.	
0.60						MADE GROUND: Dark brown clayey silty SAND and GRAVEL with cobbles. Gravel is fine to coarse angular to subrounded of sandstone and quartzite. Pocket of grey ash at 0.4-0.55m bgl in west of pit.	5.48
	100-110	85-90	RAD	95			
	100-130	70-80				MADE GROUND: Greenish brown very clayey sandy SILT. Rare fine to medium subrounded gravel.	
1						Becoming brown silty medium SAND wth angular cobbles of sandstone and some medium to coarse gravel.	
	100	80-90					
		60-70					
2							
		80-90					
		80-90				... at 2.8m bgl boulder of light grey weathered weak concrete with a little brick aggregate.	
3							
		80-90				... at 3.0m boulders and cobbles of buff medium grained sandstone. Slate with clayey ash.	
3.20							2.88
		60-70				MADE GROUND: Grey coarse gravelly SAND/sandy GRAVEL. Gravel is fine to coarse subrounded to rounded with angular fine to coarse brick and slate fragments. Rare leather (footwear), fine coke and coal fragments. (Disturbed beach deposits/made ground).	
3.50							2.58
		60-80				Trial pit terminated at 3.5m bgl.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP3/1/022

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316413 N:683140
DATE STARTED 19/11/12 **COMPLETED** 19/11/12
GROUND ELEVATION (mAOD) ____ **TEST PIT SIZE** 2.7m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NW-SE
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION
	45-55					0.10	MADE GROUND: Grass over dark brown sandy TOPSOIL and a little fine to medium subangular gravel. Green armoured hose fragment.
	45-60	50-60	RAD	50		0.25	Grey brown silty medium to coarse SAND with a little fine to medium subangular gravel. Many roots and rootlets.
	45-50	50-60	RAD	55			Light brown medium to coarse SAND with a little fine to medium subangular gravel and occasional cobble. Many roots and rootlets.
			RAD	60		0.60	Yellow brown medium to coarse SAND and subangular to subrounded gravel and cobbles of sandstone. Rare shell fragments including limpet and gastropods.
1						1.00	
	70-90	50-60		60			Grey brown silty CLAY with a little fine to coarse subangular to subrounded gravel. Occasional cobble sized spheroidal weathered diorite lithorelicts. Angular to subrounded sandstone boulders and cobbles.
	140-170	55-65				1.80	
	140-170	55-65					... at 1.8m bgl RT30 identifed potassium-40. Trial pit terminated at 1.8m bgl unable to excavte deeper.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP3/1/023

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316430 N:683173
DATE STARTED 16/11/12 **COMPLETED** 16/11/12
GROUND ELEVATION (mAOD) 5.110 m **TEST PIT SIZE** 3.4m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NW-SE
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION	
	60-90						
	90-150	90-110	RAD	72			
	90-160	90-110					
			RAD	78			
	85-120	65-90					
1							
	60-120	55-70					
2	115-144	50-75	RAD	73			
			RAD	75			
3							
	80-100						

0.05 MADE GROUND: Grass over dark brown silty TOPSOIL with a little fine to medium angular gravel. — 5.06

MADE GROUND: Grey sandy silty fine to medium angular GRAVEL. 'Wellwood' brick fragment. Much red fine to coarse angular burnt shale (0.1-0.2m bgl).
0.40 Roots to 0.35m bgl 0.1m diameter.
Sweet wrapper 'bite size' labelling. — 4.71

0.70 MADE GROUND: Brown silty SAND and a little fine to coarse subangular gravel, cobbles and boulders of sandstone. — 4.41

Angular sandstone BOULDERS in brown sandy silty matrix.

1.10 — 4.01

Brown medium to coarse SAND and fine to coarse subangular gravel and cobbles.

Rounded diorite cobbles, possible spheroidal weathering.
(Drift deposits).

3.05 ... at 3.0m bgl RT30 identified potassium-40. — 2.06

Trial pit terminated at 3.05m bgl due to obstruction possible bedrock.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP3/1/024

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316416 N:683244
DATE STARTED 2/11/12 **COMPLETED** 2/11/12
GROUND ELEVATION (mAOD) 3.958 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NW-SE
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	60-90						MADE GROUND: Dark brown clayey sandy silty TOPSOIL with a little subangular to subrounded medium to coarse gravel. Occasional whole bricks, metal pipe fragments and tarmac cobbles.	
	85-110	60-90	RAD	73		0.40		3.56
	150-190	60-90	RAD	76			MADE GROUND: Loose light grey fine ASH and angular clinker GRAVEL.	
	180-200	80-100					Concrete boulder RT30 identified thorium-232, barium-133 and potassium-40.	
						0.80		3.16
1							MADE GROUND: Brown/grey brown silty sandy CLAY and a little subangular to rounded gravel, occasional tarmac and clay drain pipe fragment.	
	180-220	90-110	RAD	76				
						1.40		2.56
		70-90	RAD	73		1.50	MADE GROUND: Dark grey sandy ASH and angular to subangular medium to coarse clinker GRAVEL.	2.46
	170	70-90				1.70	Light grey shelly SILT.	2.26
	120-160	65-80	RAD	63		1.75	Buff fine to medium grained SANDSTONE.	2.21
							Trial pit terminated at 1.75m bgl due to bedrock.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP3/1/025

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316416 N:683225
DATE STARTED 15/11/12 **COMPLETED** 15/11/12
GROUND ELEVATION (mAOD) 4.366 m **TEST PIT SIZE** 2.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 2.50 m / Elev 1.87 m
LOGGED BY ALLAW/KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NW-SE
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
						0.10	MADE GROUND: Leaf litter over dark brown slightly sandy gravelly CLAY. Frequent rootlets.	4.27
	60						MADE GROUND: Brown slightly sandy gravelly CLAY. Gravel is fine to coarse subangular to subrounded of sandstone.	
	70-115	70-90					... from 0.45m bgl becoming light brown.	
	100-155	70-85					... from 0.6m bgl occasional whole bricks, angular brick fragments, concrete slab and coal.	
	100-160	70-85					... more frequent whole bricks.	
1	150-210	85-130				0.95		3.42
	180-210	90-150					MADE GROUND: Grey brown gravelly CLAY with occasional orange laminations. Gravel is fine to coarse angular to subrounded of tile, brick and tarmac.	
						1.55	... RT30 identified thorium-232 and potassium-40 on spoil heap from 0.1m-1.55m bgl.	2.82
			RAD	2100			MADE GROUND: Black gravelly ASH. Gravel is fine to coarse angular clinker. Occasional red brick, shell and wire fragments. ... fine clinker recovered from 1.55m-1.95m identified radium-226 1.5uSv/hr.	
2						1.95		2.42
	151	70-85					Light grey/buff, locally red brown, medium to coarse SAND with angular sandstone gravel and cobbles.	
	100-140	60-105						
		60-75				2.50		1.87
			RAD	66			Greenish brown firm to stiff CLAY and a little fine to medium subangular to subrounded gravel. Locally organic and dark grey/black. (Estuarine alluvium).	
	170-180							
3		70-105				3.00	... RT30 identified potassium-40 at 3.0m bgl.	1.37
							Trial pit terminated at 3.0m bgl due to obstruction possible bedrock.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Groundwater seepage at 2.5m bgl.

TRIAL PIT NUMBER TP3/1/026

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316409 N:683217
DATE STARTED 15/11/12 **COMPLETED** 15/11/12
GROUND ELEVATION (mAOD) 4.423 m **TEST PIT SIZE** 2.9m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NW-SE
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION	
	40-80	50-70				MADE GROUND: Rough vegetation over reddish brown sandy clayey silty TOPSOIL with some fine subangular gravel. Roots and rootlets to 0.3m bgl.	
	60-90	60-80	RAD	60			
	60-90	60-80					
0.45						... at 0.4m bgl concrete, malteser packet and drink can fragment.	3.97
	80-130	60-85	RAD	55		MADE GROUND: Grey brown clayey SAND and a little fine to coarse angular to subangular gravel. Whole brick (unamed). Cobble sized tarmac.	
	90-130	60-85				... at 0.5m bgl electrical cable.	
0.95							3.47
1	120-150	60-85				MADE GROUND: Light brown sandy CLAY and a little fine to coarse subangular gravel. Occasional wood fragments, metal clasp and blue green battery remains.	
1.10							3.32
	120-160	60-90		340		MADE GROUND: Black angular clinker GRAVEL and ASH. Circular instrument housing, ovalised gasket, 0.1m diameter hose, transparent perspex (windscreen?) fragments, leather glove, sliver metal backed film, angular pottery, wire and a shoe.	
1.25							3.17
	90-160	65-85	RAD	60		... between 1.1 and 1.25m bgl clinker artefact identified as radium-226 dose rate 146.5nSv/hr.	
1.60							2.82
	70-105	60-80				MADE GROUND: Red brown fused SAND. (Impacted by burning).	
2						Yellow brown/buff medium to coarse SAND and a little angular sandstone gravel and cobbles.	
	60-80	45-70					
2.20							2.22
	60-80						

Trial pit terminated at 2.2m bgl due to sidewall collapse.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP3/1/027

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316401 N:683202
DATE STARTED 16/11/12 **COMPLETED** 16/11/12
GROUND ELEVATION (mAOD) 4.688 m **TEST PIT SIZE** 3.1m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY MIFFL/KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NW-SE
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
	60-80					MADE GROUND: Grass over dark brown sandy TOPSOIL with subangular to subrounded gravel and cobbles.
	70-90	60-80				
0.35						4.34
	90-120	60-80				MADE GROUND: Grey sandy CLAY with fine gravel and rootlets. Gravel is sandstone, brick and tile.
			RAD	65		
	100-170	60-80	RAD	65		Some unnamed whole bricks with depth. ... from 0.6m bgl isolated pockets of very light grey aggregate (possible breeze block type material). Plastic film in south face adjacent to grey material. Rare possible asbestos cement tile.
	110-200	70-90				
1						
1.10						RT30 identified potassium-40. 3.59
			RAD	65		MADE GROUND: Dark grey sandy SILT/silty SAND. Metal sheet fragment 0.2m x 0.3m with
1.30						rivet holes. (Relict topsoil). 3.39
	60-100	60-90				Buff medium to coarse SAND and fine to coarse subangular sandstone gravel and cobbles.
1.80						2.89
1.85	80-115	60-80	RAD	65		Light grey SAND and sandstone GRAVEL. 2.84 Trial pit terminated at 1.85m bgl due to obstruction; bedrock.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP3/1/028

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316412 N:683180
DATE STARTED 16/11/12 **COMPLETED** 16/11/12
GROUND ELEVATION (mAOD) 4.859 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NE-SW
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION	
						0.05 MADE GROUND: Grass over dark grey sandy silty TOPSOIL.	4.81
	80-100	70-90				MADE GROUND: Grey brown slightly clayey sandy medium to coarse angular GRAVEL (Type 1 fill).	
	100-125	80-90	RAD	75		... at 0.2m bgl pocket of fine to medium angular red burnt shale gravel, drink can ring-pull.	
						0.40 ... at 0.25m bgl 'Lochside' brick and tarmac fragments.	4.46
	80-100	90	RAD	70		Dark brown sandy SILT and some fine to coarse subangular gravel. Decayed rootlets/root mat.	
						0.75	4.11
	70-90	60-90	RAD	70		Buff orange brown medium to coarse SAND and subangular to subrounded GRAVEL. Occasional cobbles and rare shells.	
1							
						1.40	3.46
						Buff yellow brown medium SAND and angular cobbles and boulders of sandstone. (Weathered sandstone).	
	90-140	60-90				1.65	3.21

Trial pit terminated at 1.65m bgl due to obstruction; bedrock.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP3/1/029

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316425 N:683145
DATE STARTED 19/12/12 **COMPLETED** 19/12/12
GROUND ELEVATION (mAOD) 7.472 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION SW-NE
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	50-60					0.10	MADE GROUND: Grass over brown silty sandy gravelly TOPSOIL. Gravel is angular to subangular of mixed lithology.	7.37
	50-60	50-60	RAD	58			Light brown silty fine to medium SAND and fine to coarse angular to subangular sandstone GRAVEL, cobbles and boulders. Some roots and rootlets.	
	50-60	50-60	RAD	60				
1						1.10	... at 1.1m bgl RT30 identified potassium-40.	6.37
	50-60	50-60					Trial pit terminated at 1.1m bgl due to obstruction; bedrock.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP3/2/030

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316445 N:683308
DATE STARTED 7/11/12 **COMPLETED** 7/11/12
GROUND ELEVATION (mAOD) 3.656 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY MIFFL
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NE-SW
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	90-110						MADE GROUND: Brown grey coarse SAND with gravel and cobbles of mixed lithology. Angular to subrounded fragments of brick, glass and wood.	
	90-150	70-110				0.35		3.31
	150-200	90-120	RAD	90			MADE GROUND: Dark grey/black sandy fine to coarse ASH and clinker GRAVEL. Brick fragments. Rare rubber, plastic, wood, pottery and ceramic.	
	170-250	100-150						
	190-290	100-160	RAD	260&1100			Ash/clinker is bedded in fine and coarse layers. Coarse layers typically 0.05m - 0.15m thickness	
	200-250	100-148					... from 0.6m bgl in coarse layer bone, tile, and crystaline white material.	
	210-270	110-162						
1							2 No. clinker artefacts recovered from 0.6m, both identified as radium-226 dose rates 82.5nSv/hr and 516nSv/hr.	
	190-240	100-130	RAD	90		1.10		2.56
						1.20	... from 0.8m bgl in fine ash layer possible cement bonded asbestos tile, glass, rubber coupling and plant pot.	2.46
	180-200						Buff yellow brown sandy fine subangular sandstone GRAVEL. Trial pit terminated at 1.2m bgl due to obstruction; bedrock.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP3/2/031

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316437 N:683259
DATE STARTED 14/11/12 **COMPLETED** 14/11/12
GROUND ELEVATION (mAOD) 3.726 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 0.90 m / Elev 2.83 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION E-W
AFTER EXCAVATION 0.90 m / Elev 2.83 m

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	70-85					0.10	MADE GROUND: Grey sandy fine to coarse angular to subangular GRAVEL with occasional cobbles.	3.63
	95-150	70-100				0.30	MADE GROUND: Grey sandy silty fine to coarse subangular to subrounded GRAVEL and cobbles.	3.43
	160-220	80-115	RAD	75		0.55	MADE GROUND: Grey brown sandy ASH and fine clinker GRAVEL with glass, pottery, possible asbestos cement board and blue battery waste.	3.18
	250-320	75-90	RAD	1300			MADE GROUND: Black fine to medium angular clinker GRAVEL with wire, light bulb, pottery, glass, brick, metal rods 0.05m x 5mm and leather shoe fragments.	
			RAD	1900			... 0.65m - 0.75m bgl layer of grey sand.	
	200-300		RAD	1250			... multiple point sources within ash/clinker layers all identified at radium-226. Dose rates from 55.9nSv/hr to 1.1uSv/hr.	
1								
	200-800	90-120						
	170-215		RAD	1600			... from 1.2m bgl clinker becoming much coarser. Pottery dated 1956, hydrocarbon odour and sheen on groundwater.	
						1.50		2.23
	120-220	80-140					Trial pit terminated at 1.5m bgl due to water ingress.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Standing water at 0.9m bgl.

TRIAL PIT NUMBER TP3/2/031B

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316441 N:683258
DATE STARTED 19/11/12 **COMPLETED** 19/11/12
GROUND ELEVATION (mAOD) 3.729 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 1.80 m / Elev 1.93 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NW-SE
AFTER EXCAVATION 1.80 m / Elev 1.93 m

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	75-115						MADE GROUND: Dark grey sand and fine to coarse angular GRAVEL of mixed lithology. Buff sandy pocket in south east of pit between 0.05m and 0.15m.	
	75-120	65-95				0.30		3.43
	100-250	70-85	RAD	350			MADE GROUND: Grey brown SAND and fine to coarse angular clinker. Mixed gravel comprising weathered glass, pottery, tile, aluminium, cased copper wire, blue satined burnt shale, brick, wire, reinforced glass and possible asbestos cement tile.	
	100-180	70-85	RAD	81				
			BULK	104		0.55		3.18
	180-270	85-100	RAD	300			MADE GROUND: Black fine to medium ASH and angular clinker GRAVEL (coarser than above horizons).	
			RAD	1500				
	170-250		RAD	77			'U442 UGB5' and lion motif on brown glass bottle.	
1								
	230-420	150-170	RAD	2250			... at 1.1m bgl pottery dated 1942 and corroded metal pipe.	
	220-500		RAD	1000				
			BULK	94			... bakelite artifact, perspex screen and hydrocarbon odour.	
			RAD	50000			... Possible multiple dispersed point sources throughout ash material.	
	300-450	90-100	WATER			1.90		1.83
2			RAD	77		2.00	Dark greenish grey sandy SILT. (Estuarine alluvium).	1.73

Trial pit terminated at 2.0m bgl due to obstruction possible bedrock.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Standing water at 1.8m bgl.
5. Following restoration additional 650cps clinker artifact recovered from surface.

TRIAL PIT NUMBER TP3/2/032

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316430 N:683265
DATE STARTED 14/11/12 **COMPLETED** 14/11/12
GROUND ELEVATION (mAOD) 3.757 m **TEST PIT SIZE** 5.1m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NW-SE
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
	65-80					MADE GROUND: Root mat over dark brown silty SAND and fine to coarse angular GRAVEL, cobbles and boulders. Occasional chain metal springs and roots. Possible aluminium rectangular component 0.1m x 0.4m with rivet holes. Shovel, unnamed brick, metal debris and fertilizer bag.
	65-70	65-80				
			RAD	70		... at 0.4m bgl 'Sunblest sliced loaf bag'
	80-115	65-75				
1						... at 0.8m bgl concrete blocks, tarmac and 'Lochside' bricks in light brown sandy gravel.
1.30	150-180	75-90				RT30 identified potassium-40. 2.46 Trial pit terminated at 1.3m bgl due to obstuction; bedrock.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP3/2/033

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316428 N:683279
DATE STARTED 20/11/12 **COMPLETED** 20/11/12
GROUND ELEVATION (mAOD) 3.918 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N-S
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
	80-130					
	90-130	100-170	RAD	76		MADE GROUND: Rough scrub over grey brown coarse ashy SAND and fine to ocarse angular GRAVEL of mixed lithology including clinker, brick, tile and rare pottery. Clinker gravel lens in north of pit.
	120-350	80-110				
			RAD	250		
0.50						3.42
	145-210	85-110				MADE GROUND: Dark grey to black fine to coarse angular ASH and clinker GRAVEL with pottery subangular glass and possible asbestos cement tile. Occasional sandstone boulder, shells, perspex screen fragment, brick, rubber seal and metal.
			RAD	85		
	160-305	90-110	RAD	170		
1						
	150-210		RAD	840		
1.10						2.82
						... at 1.05m bgl possible dispersed multi low-activity point sources. Clinker artefact identified as radium-226, dose rate 462.7nSv/hr. RT30 identified thorium-232 and potassium-40 at 1.1m bgl on sandstone. Trial pit terminated at 1.1m bgl due to obstruction possible bedrock.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.
5. Following restoration additional 275cps and 650cps clinker artifacts recovered from surface.
6. Clinker artefact recovered at surface 1m to south-east of trial pit, identified as radium-226, dose rate 790nSv/hr (1730cps).

TRIAL PIT NUMBER TP3/2/033B

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316427 N:683278
DATE STARTED 20/11/12 **COMPLETED** 20/11/12
GROUND ELEVATION (mAOD) 3.6 m **TEST PIT SIZE** 0.5m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Hand Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N/A
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION
			RAD	800		0.20	MADE GROUND: Grey brown ashy SAND and fine to medium gravel including clinker and rare pottery. 3.40

Hand pit terminated at 0.2m bgl on recovery of targetted artefact.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.
5. Hand pit targetting identified elevated surface activity reading 5m south of TP3/2/033.

TRIAL PIT NUMBER TP3/2/033C

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316429 N:683278
DATE STARTED 20/11/12 **COMPLETED** 20/11/12
GROUND ELEVATION (mAOD) 3.6 m **TEST PIT SIZE** 0.5m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Hand Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N/A
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
						MADE GROUND: Dark grey clayey silty sandy TOPSOIL and a little fine to coarse gravel of mixed lithology including clinker.
			RAD	570		0.35 ... at 0.35m bgl clinker artifact identified as radium-226 196.4nSv/hr. Hand pit terminated 0.35m bgl artifact recovered. 3.25

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.
5. Hand pit targetting identified elevated surface activity reading 7m south of TP3/2/033.

TRIAL PIT NUMBER TP3/3/034

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316420 N:683189
DATE STARTED 12/11/12 **COMPLETED** 12/11/12
GROUND ELEVATION (mAOD) 4.480 m **TEST PIT SIZE** 2.3m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION SW-NE
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	90-168	200				0.10	MADE GROUND: Grey sandy fine to coarse GRAVEL (Type 1 fill).	4.38
	100-150		RAD	90		0.20	MADE GROUND: Dark grey to black ASH and angular clinker GRAVEL. Occasional possible asbestos tile, white pottery, light blue battery remnants, brick and metal.	4.28
	150-280	130-160				0.40	200-300cps dispersed throughout ash no specific source identifiable. RT30 identified radium-226.	4.08
	120-180	95-105	RAD	85			MADE GROUND: Brown/grey brown clayey sandy fine to coarse GRAVEL and cobbles.	
							MADE GROUND: Greenish brown sandy silty CLAY and fine to coarse angular to subrounded GRAVEL and cobbles fo mixed lithology including concrete, tarmac and brick.	
							... at 0.5m bgl strong hydrocarbon odour.	
1						0.95	... at 0.6m bgl wooden stake and root mat remains.	3.53
	260	130-160	RAD	85			MADE GROUND: Dark grey coarse sandy ASH and fine to coarse angular clinker GRAVEL. Occasional angular glass and shells.	
							Clinker artefact recovered from 0.95m bgl identified radium-226 99.3nSv/hr.	
						1.25		3.23
							Top of ash dips to 1.1m bgl in NNE of pit.	
			RAD	85		1.45	Orange brown to light brown coarse SAND and fine to coarse angular to subangular GRAVEL, cobbles and boulders of sandstone.	3.03
	100-130						Trial pit terminated at 1.45m bgl due to obstruction; bedrock.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP3/3/035

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316416 N:683198
DATE STARTED 12/11/12 **COMPLETED** 12/11/12
GROUND ELEVATION (mAOD) 4.426 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 1.90 m / Elev 2.53 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NW-SE
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	75-80						MADE GROUND: Grass over red brown silty fine SAND and fine to coarse angular to subrounded GRAVEL. Piece of textile.	
	110-140	65-85	RAD	60		0.30	Dark grey sandy fine to coarse angular gravel in east of pit.	4.13
	130-180	90-110					MADE GROUND: Grey sandy gravelly CLAY. Gravel is angular to subrounded of mixed lithology. Boulder of concrete, occasional brick and tarmac cobbles.	
	85-100					0.80		3.63
1							MADE GROUND: Grey sandy gravelly CLAY. Gravel is fine to coarse angular to subrounded.	
						1.20		3.23
	140-190		RAD	90		1.30	MADE GROUND: Black sandy ASH and fine to medium clinker GRAVEL. Occasional plastic film and shells.	3.13
						1.40	No point sources encountered in ash layer.	3.03
							MADE GROUND: Orange brown and buff coarse SAND (possible fused sand) with fine to coarse sandstone gravel. Armoured cable fragment and 0.1m diameter metal disc (no elevated activity).	
	80-115	60-90					Yellow brown/buff medium SAND with angular sandstone GRAVEL and cobbles.	
2						2.00		2.43
	80-100	65-80					Trial pit terminated at 2.0m bgl due to obstruction possible bedrock.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Groundwater seepage at 1.9m bgl.

TRIAL PIT NUMBER TP3/3/036

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CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316506 N:683152
DATE STARTED 29/10/12 **COMPLETED** 29/12/12
GROUND ELEVATION (mAOD) 3.970 m **TEST PIT SIZE** 3.9m x 1.0m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N-S
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	75-90		RAD	57			MADE GROUND: Dark grey sandy coarse angular GRAVEL and angular cobbles.	
	90-110					0.30		3.67
	100-125	90-100					MADE GROUND: Red brown sandy fine to coarse angular GRAVEL and cobbles of mixed lithology including brick and sandstone. Blue plastic sheet fragments and pockets of red brown sandy clay.	
	140-160	100-110						
1	140-180	90-110	RAD	61				
	150-200	90-100						
						1.45		2.52
	180-200	75-100					MADE GROUND: Greenish brown SAND and fine to coarse subangular to subrounded GRAVEL.	
						1.90		2.07
2	150-230		RAD	170&660		2.00	MADE GROUND: Dark grey sandy GRAVEL comprising fine to coarse angular to subangular clinker, occasional glass, pottery and rubber o ring/gasket. 2 No. clinker artifacts recovered 170cps and 660cps.	1.97
							Trial pit terminated at 2.0m bgl due to obstruction; bedrock.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP3/3/037

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316436 N:683233
DATE STARTED 1/11/12 **COMPLETED** 1/11/12
GROUND ELEVATION (mAOD) 3.733 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 1.70 m / Elev 2.03 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION E-W
AFTER EXCAVATION 1.70 m / Elev 2.03 m

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	60-80						MADE GROUND: Dark grey sandy fine to coarse angular GRAVEL and cobbles. 140-160cps in west of pit; grey green sandy angular medium to coarse gravel.	
	80-160	80-90				0.35		3.38
	100-460	80-90	RAD	70		0.45	MADE GROUND: Dark grey sandy ASH and fine to coarse angular clinker GRAVEL with pottery fragments. Ash deepens to east.	3.28
			RAD	400		0.55	MADE GROUND: Greenish brown silty fine to medium SAND.	3.18
			RAD	62			MADE GROUND: Greenish brown silty slightly gravelly CLAY. Gravel is fine to medium angular to subangular.	
	140-185	80-100						
1			RAD	64		1.00		2.73
	190-240	90-130	RAD	63		1.20	MADE GROUND: Light brown medium to coarse SAND and fine to coarse subangular to subrounded GRAVEL. Occasional clinker, wire and pottery.	2.53
	270-350	100-135					MADE GROUND: Brown sandy fine to coarse angular to subangular clinker GRAVEL with glass and pottery marked 'NAAFI'	
			RAD	3990			... clinker artefact from 1.8m bgl identified radium-226, dose rate 97.4nSv/hr.	
2	300		RAD	400		2.00		1.73
			RAD	70		2.10	Light grey clayey SILT and cream shells and shell fragments.	1.63

Trial pit terminated at 2.1m bgl.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Standing water at 1.7m bgl sheen on water.

TRIAL PIT NUMBER TP3/3/038

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316442 N:683189
DATE STARTED 6/11/12 **COMPLETED** 6/11/12
GROUND ELEVATION (mAOD) 4.332 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N-S
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION	
	80-95						
	90-120		RAD	78			
		80-100					
			RAD	78			
	150-180	80-100					
	150-180	80-100					
1							
	180-220	80-100	RAD	83			
	270	180-210	RAD	77			
2							
	70-200						
	70-150		RAD	81			

0.05 MADE GROUND: Dark brown sandy gravelly silty TOPSOIL with fine to coarse angular to subangular gravel. Metal screws. — 4.28
0.15 — 4.18

MADE GROUND: Pocket of black ASH and clinker GRAVEL in west of pit (150cps). Some light blue-green flecks (battery waste) and burnt shale.

0.40 — 3.93

MADE GROUND: Grey brown clayey SILT and fine to coarse angular GRAVEL and cobbles of sandstone, tarmac, tile and occasional plastic.

0.60 — 3.73

MADE GROUND: Grey CLAY and fine to coarse subangular to subrounded GRAVEL. Wood fragments and occasional tarmac.

0.90 MADE GROUND: Greenish grey silty CLAY and fine to coarse angular to subrounded GRAVEL. Rare tarmac cobble. — 3.43

MADE GROUND: Greenish grey silty CLAY and some fine to coarse subangular to subrounded gravel.

1.70 — 2.63

MADE GROUND: Loose grey sandy ASH and fine clinker GRAVEL.
... between 1.7m and 2.0m bgl RT30 identified radium-226, dose rate 79.8nSv/hr.

2.00 — 2.33

Light grey/cream silty coarse SAND.

2.30 — 2.03

Trial pit terminated at 2.3m bgl.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP3/3/039

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316488 N:683175
DATE STARTED 31/10/12 **COMPLETED** 31/10/12
GROUND ELEVATION (mAOD) 4.052 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION SW-NE
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION	
	85-100	85-100				MADE GROUND: Grass over dark brown clayey silty TOPSOIL and fine to coarse angular to subrounded gravel with a little tarmac and rare sandstone boulder.	
	100-150					... from 0.2m bgl becoming brown sand and fine to coarse subangular to subrounded gravel.	
						... at 0.4m bgl angular reinforced concrete boulder 1.2m x 0.6m x 0.16m.	
	120-200	85-100					
						0.80	3.25
	120-160	85-100	RAD	80		MADE GROUND: Brown sandy gravelly CLAY. Gravel is angular to subrounded of sandstone and concrete. Occasional cobbles and wire.	
1							
						1.50	2.55
			RAD	66		MADE GROUND: Loose black sandy gravelly ASH and angular clinker GRAVEL. Clinker artefacts with green patches (160cps) and pottery.	
	200-250		RAD	4100		... clinker artefact recovered from 1.6m bgl RT30 identifed radium-226, dose rate 2.9uSv/hr.	
2							
	235-320	90-110					
			RAD	84		2.20	1.85
			RAD	75		2.30 Orange brown medium to coarse SAND.	1.75

Trial pit terminated at 2.3m bgl.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP3/3/040

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316474 N:683170
DATE STARTED 31/10/12 **COMPLETED** 31/10/12
GROUND ELEVATION (mAOD) 3.986 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION SW-NE
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION	
						0.01 MADE GROUND: Black ASH and fine GRAVEL.	3.98
	100-280	110				MADE GROUND: Angular BOULDERS of sandstone in grey matrix of sand and gravel of mixed lithology including fragments of metal wire, linoleum, slate and brick.	
	80-90	70-90	RAD	82			
			RAD	80			
1	80-120	80-90				1.00	2.99
	140-180	80-100				MADE GROUND: Dark grey to black sandy ASH and fine angular GRAVEL including occasional fragments of pottery and glass. Draughts piece.	
						1.30	2.69
						Buff/orange brown medium SAND and buff angular sandstone lithorelicts.	
						1.50	2.49
			RAD	80		Buff/orange brown and grey silty sandy CLAY.	
	140-174	80-100				1.70	2.29
						Buff SAND and angular SANDSTONE cobbles and boulders.	
2						2.00	1.99
	180-220	80-100				Trial pit terminated at 2.0m bgl due to obstruction; bedrock.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.
5. Following restoration 2600cps clinker artifacts recovered from surface. RT30 identified radium-226, dose rate 1.1uSv/hr.

TRIAL PIT NUMBER TP3/3/041

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CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316465 N:683158
DATE STARTED 19/11/12 **COMPLETED** 19/11/12
GROUND ELEVATION (mAOD) 6.131 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION E-W
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION	
	55-65					MADE GROUND: Grass over dark brown sandy SILT/silty SAND and some fine to coarse angular to subangular gravel, cobbles and boulders of sandstone. Roots and rootlets.	
	65-75	55-65	RAD	58		... between 0.1m and 0.2m bgl pieces of rope.	
0.40							5.73
						Buff and light grey fine to medium grained SANDSTONE and medium to coarse sand. (Weathered bedrock).	
	75-115	60-65					
			RAD	35			
0.80						... RT30 identified potassium-40 at base of hole.	5.33
	90-125	60-70				Trial pit terminated at 0.8m bgl due to obstruction; bedrock.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP3/3/042

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CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316467 N:683185
DATE STARTED 31/10/12 **COMPLETED** 31/10/12
GROUND ELEVATION (mAOD) 3.935 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION SW-NE
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
						0.10	MADE GROUND: Dark grey sandy fine to coarse angular to subrounded GRAVEL.	3.84
	70-90						MADE GROUND: Dark grey sandy fine to coarse angular GRAVEL, cobbles and boulders of mixed lithology including sandstone, brick and rare metal, bone and slate.	
	90-140	90-100						
			RAD	70-90		0.60		3.34
	100-150	70-80					MADE GROUND: Dark grey ASH and fine angular GRAVEL of clinker, brick and glass. Local light blue green discolouration (decayed battery remains). Bricks labelled 'Ochinlea' and 'Lochside'.	
	150-180	70-80	RAD	200&54			... at 0.8m bgl clinker fragment with light green discolouration recovered. RT30 identified radium-226, dose rate 84.7nSv/hr.	
1								
	190-440	80-100	RAD	3100			... at 1.1m bgl clinker artifact recovered identified radium-226, dose rate 340.3nSv/hr.	
						1.45		2.49
						1.55	Buff/orange brown medium to coarse SAND.	2.39

Trial pit terminated at 1.55m bgl due to obstruction; bedrock.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP3/3/043

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316455 N:683142
DATE STARTED 19/11/12 **COMPLETED** 19/11/12
GROUND ELEVATION (mAOD) 7.301 m **TEST PIT SIZE** 2.9m x 0.7m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION E-W
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION	
	55-65					Grass over dark brown sandy silty TOPOSIL and coarse gravel and cobbles of sandstone. Rootmat.	
0.20							7.10
	65-85	45-55	RAD	51		Light brown sandy angular sandstone COBBLES and BOULDERS.	
	50-130	50-75		55			
0.70						... RT30 identified potassium-40.	6.60
						Trial pit terminated at 0.7m bgl due to obstruction; bedrock.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP3/3/044

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316427 N:683215
DATE STARTED 13/11/12 **COMPLETED** 13/11/12
GROUND ELEVATION (mAOD) 4.061 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 1.90 m / Elev 2.16 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NW-SE
AFTER EXCAVATION 1.90 m / Elev 2.16 m

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	65-80					0.15	MADE GROUND: Grass over dark brown sandy silty gravelly TOPSOIL.	3.91
	85-130	75-90				0.30	MADE GROUND: Red brown sandy SILT and fine to coarse subangular GRAVEL. Occasional brick.	3.76
	180-230	95-110					MADE GROUND: Grey sandy CLAY and angular to subangular GRAVEL. Metal fragments, cobbles and boulders.	
1						1.20		2.86
							MADE GROUND: Brown soft to firm CLAY and fine to coarse subangular GRAVEL.	
						1.55		2.51
			RAD	60			MADE GROUND: Loose black sandy ASH and fine to coarse angular clinker GRAVEL. Occasional pottery.	
			RAD	1510			Possibly many low activity dispersed sources throughout ash layer. ... between 1.55m and 2.1m bgl clinker artefact recovered identified radium-266, dose rate 636nSv/hr.	
2	320					2.10		1.96
		90-200				2.20	Brown sandy CLAY. (Estuarine alluvium).	1.86
		95-130					Trial pit terminated at 2.2m bgl due to obstruction; bedrock.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Standing water at 1.9m bgl.

TRIAL PIT NUMBER TP3/3/045

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316420 N:683204
DATE STARTED 13/11/12 **COMPLETED** 13/11/12
GROUND ELEVATION (mAOD) 4.192 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 0.20 m / Elev 3.99 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NW-SE
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION	
						0.10 MADE GROUND: Grass over dark brown silty sandy gravelly TOPSOIL.	4.09
						0.15 MADE GROUND: Grey brown sandy medium to coarse angular GRAVEL.	4.04
	95-135	75-80				MADE GROUND: Brown sandy gravelly CLAY. Gravel is fine to coarse angular to subrounded of mixed lithology. Occasional brick and tarmac. Possible aromatic hydrocarbon odour (PAH).	
						0.55	3.64
	140-210	90-150				MADE GROUND: Grey sandy gravelly CLAY. Gravel is fine to coarse angular to subrounded of mixed lithology. ... from 0.7m to 1.0m bgl slight hydrocarbon odour. ... from 0.8m bgl to 1.0m bgl much decaying plant remains.	
1							
	140-200	85-100				... from 1.0m bgl becoming orange brown clayey gravel.	
						1.20 ... at 1.1m bgl golf ball.	2.99
	140-200	100-130	RAD	60		MADE GROUND: Loose dark grey to black ASH and fine to medium angular clinker GRAVEL. Rare copper wire, fuse, metal wire, pottery, leather, glass bottles and gaskets.	
		80-85				1.50 ... from 1.4m bgl many shell fragments and 'innoxa' glass jar.	2.69
	270	95-110	RAD	63		MADE GROUND: Red brown/orange brown clinker/fused sand with fine subangular gravel inclusions and metal fragments, clamp bolts, fabric, wire, light bulb and penknife.	
	150-190	75-90				1.75 RT30 identified radium-226 89.3nSv/hr in pit.	2.44
2						Buff coarse SAND and medium to coarse subangular GRAVEL.	
						2.10	2.09
						2.20 Dark grey silty CLAY and a little fine to medium subangular to subrounded gravel.	1.99
			RAD	65		Orange brown medium SAND and fine to medium subangular to subrounded GRAVEL.	
						2.40	1.79
						2.50 Orange brown sandy angular COBBLES and BOULDERS of sandstone.	1.69
		75-85				RT30 identifed potassium-40 at base of hole. Trial pit terminated at 2.5m bgl due to obstruction; bedrock.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Slight seepages at 0.2m and 2.1m bgl.

TRIAL PIT NUMBER TP3/3/046

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316429 N:683239
DATE STARTED 1/11/12 **COMPLETED** 1/11/12
GROUND ELEVATION (mAOD) 3.697 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 1.35 m / Elev 2.35 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NW-SE
AFTER EXCAVATION 1.35 m / Elev 2.35 m

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION	
	70-90					MADE GROUND: Grass over dark brown sandy clayey SILT/TOPSOIL with fine to coarse subangular gravel and cobbles.	
	70-90		RAD				
	90-130					... at 0.4m bgl dark grey to black sandy clay and ash pocket in south of pit.	
	130-140	70-100				... from 0.5m bgl becoming brown sandy silty clay and fine to coarse angular to subangular gravel with tarmac.	
1	130-150	60-90	RAD				
						1.05	2.65
	180-210	60-90	RAD	475		MADE GROUND: Brown sandy ASH/ashy SAND and fine to medium angular to subangular gravel.	
						1.20	2.50
						At 1.05m bgl clinker artefact recovered identified radium-226, dose rate 189nSv/hr.	
			RAD	72		MADE GROUND: Grey sandy fine to coarse angular clinker GRAVEL. Possible asbestos cement board, pottery, glass, metal clip and bottle.	
	340	80-100	RAD	1600		... at 1.45m bgl clinker artefact recovered identified radium-226, dose rate 785nSv/hr.	
			RAD	1300			
2						2.00	1.70
						Ligth grey sandy SILT/silty fine SAND.	
						2.20	1.50
	260	80-100				Trial pit terminated at 2.2m bgl due to obstruction; bedrock.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Standing water at 1.35m bgl.

TRIAL PIT NUMBER TP3/3/047

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316486 N:683152
DATE STARTED 30/10/12 **COMPLETED** 30/10/12
GROUND ELEVATION (mAOD) 4.229 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION E-W
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION	
	80-100		RAD	62		0.01 MADE GROUND: Dark grey sandy ASH and a little fine to medium clinker gravel.	4.22
						MADE GROUND: Grey and buff BOULDERS of dressed stone (fine grained sandstone) possibly machine cut. Occasional brick in light grey fine sand matrix.	
	80-100	80-100				0.80	3.43
	175-210	80-100				MADE GROUND: Dark grey sandy ASH and fine to coarse clinker GRAVEL with glass, possible asbestos cement tile, pottery and wood.	
1			RAD	1470		1.10 ... at 1.0m bgl 3 discrete clinker artefacts recovered 240cps, 500cps and 900cps all identified radium-226, dose rate 620.2nSv/hr.	3.13
	80-100	80-100				MADE GROUND: Brown sandy ASH and fine clinker GRAVEL. Aluminium fragments and pottery dated 1944.	
	175-200		RAD	70		... at 1.4m bgl top of bedrock in west of pit dipping to 2.0m bgl in east of pit.	
	160-195						
2						2.00	2.23
	160-195					Trial pit terminated at 2.0m bgl due to obstruction possible bedrock.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP5/2/048

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316174 N:683309
DATE STARTED 6/11/12 **COMPLETED** 6/11/12
GROUND ELEVATION (mAOD) ____ **TEST PIT SIZE** 0.5m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Hand Pit
AT TIME OF EXCAVATION ---
LOGGED BY NEWSC
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N/A
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
	70-80					0.15 MADE GROUND: Loose brown leaf litter and rootlets.
			RAD	70		MADE GROUND: Dense brown very gravelly SAND. Gravel is fine to coarse angular to rounded of brick, sandstone. Frequent cobbles and boulders. Roots.
		80-100				
1						1.00
	130-160	80-100				Hand pit terminated at 1.0m bgl.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP5/2/049

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316193 N:683314
DATE STARTED 6/11/12 **COMPLETED** 6/11/12
GROUND ELEVATION (mAOD) ____ **TEST PIT SIZE** 0.5m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Hand Pit
AT TIME OF EXCAVATION ---
LOGGED BY NEWSC
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N/A
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION
	80-90					0.10	Soft TOPSOIL with rootlets.
							Dense grey brown sandy gravelly CLAY. Gravel is coarse subangular to subrounded of sandstone. Frequent cobbles and boulders.
		70-80	RAD	75		0.70	
1							Loose yellow brown fine to coarse SAND with frequent boulders of sandstone.
		70-80	RAD	75		1.20	
	140-150						Hand pit terminated at 1.2m bgl.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP5/2/050

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316196 N:683305
DATE STARTED 6/11/12 **COMPLETED** 6/11/12
GROUND ELEVATION (mAOD) ____ **TEST PIT SIZE** 0.5m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Hand Pit
AT TIME OF EXCAVATION ---
LOGGED BY NEWSC
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N/A
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
	60-70					MADE GROUND: Soft black brown sandy gravelly CLAY. Gravel is coarse subrounded of sandstone. Occasional pieces of metal.
		80-90				
1			RAD	85		
1.20		80-90				Hand pit terminated at 1.2m bgl.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP5/2/051

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316184 N:683301
DATE STARTED 6/11/12 **COMPLETED** 6/11/12
GROUND ELEVATION (mAOD) ____ **TEST PIT SIZE** 0.5m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Hand Pit
AT TIME OF EXCAVATION ---
LOGGED BY NEWSC
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N/A
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
	85-95					
						MADE GROUND: Dense black brown sandy gravelly CLAY with cobbles. Gravel is subrounded of concrete and sandstone.
						0.20
						MADE GROUND: Dense light brown gravelly coarse SAND. Gravel is coarse angular to subrounded of brick, sandstone. Occasional whole brick.
		70-80				
1						1.00
	120-180	70-80				
						Hand pit terminated at 1.0m bgl.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP5/2/052

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316181 N:683281
DATE STARTED 6/11/12 **COMPLETED** 6/11/12
GROUND ELEVATION (mAOD) ___ **TEST PIT SIZE** 0.5m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Hand Pit
AT TIME OF EXCAVATION ---
LOGGED BY NEWSC
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N/A
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
	60-70					Soft dark to light brown TOPSOIL with rootlets.
			RAD	65		
						0.40
		60-70	RAD	65		Loose light brown gravelly SAND. Gravel is coarse subrounded of sandstone.
1						1.00
	120-140	60-70				Hand pit terminated at 1.0m bgl.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP6/2/053

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316352 N:683299
DATE STARTED 8/11/12 **COMPLETED** 8/11/12
GROUND ELEVATION (mAOD) 3.381 m **TEST PIT SIZE** 4.25m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N-S
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	48-70					0.10	MADE GROUND: Leaf litter over light grey brown silty sandy TOPSOIL with a little fine to coarse subangular to subrounded gravel.	3.28
	80	35-75	RAD	59			MADE GROUND: Dark grey/black sandy fine to coarse angular clinker GRAVEL. Occasional metal wire, fence posts and metal fragments.	
						0.45		2.93
							Grey silty very clayey medium to coarse SAND. Pocket of light brown medium to coarse sand 0.3m-0.45m.	
						0.70	... from 0.6m bgl becoming sandy clay.	2.68
	90	60				0.80	Buff/orange brown medium to coarse SANDSTONE.	2.58
	55-70						Trial pit terminated at 0.8m bgl due to obstruction; bedrock. Pit extended north.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP6/2/053 North

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316352 N:683299
DATE STARTED 8/11/12 **COMPLETED** 8/11/12
GROUND ELEVATION (mAOD) 3.381 m **TEST PIT SIZE** 4.25m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 1.45 m / Elev 1.93 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N-S
AFTER EXCAVATION 1.45 m / Elev 1.93 m

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	130						MADE GROUND: Dark grey/black fine to coarse clinker GRAVEL interbedded with finer light grey sand with a little clinker gravel.	
	120-150		RAD	500			... at 0.2m bgl clinker artefact recovered (<5mm diameter) identified radium-226, dose rate 248.8nGy/hr.	
			RAD	4800			... at 0.4m bgl clinker artefact recovered (12mm diameter) identified radium-226, dose rate 2.8uGy/hr.	2.88
	100-150	90-110				0.50	Buff yellow brown medium to coarse SAND.	
						0.80		2.58
1							Grey brown medium to coarse SAND and medium to coarse angular GRAVEL and cobbles of sandstone. (Weathered bedrock).	
						1.50		1.88

Trial pit terminated at 1.5m bgl due to obstruction; bedrock.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Standing water at 1.45m bgl.
5. Extension northwards of TP6/2/053.

TRIAL PIT NUMBER TP6/2/054

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:683345 N:316226
DATE STARTED 12/11/12 **COMPLETED** 12/11/12
GROUND ELEVATION (mAOD) 3.167 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N-S
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	50-60		RAD	55-60		0.15	MADE GROUND: Buff medium coarse SAND.	3.02
	60-70	50-60					MADE GROUND: Dark grey black sandy fine to coarse angular clinker GRAVEL interbedded with grey coarse SAND. 4 ash layers and 4 sand layers each between 0.02m and 0.08m thick.	
			RAD	60		0.45		2.72
	90-100	50-60					Orange brown very clayey SAND.	
						0.65		2.52
			RAD	60		0.75	Blue grey SAND and fine to coarse angular GRAVEL. (Weathered bedrock).	2.42
	90-170						Trial pit terminated at 0.75m bgl due to obstruction; bedrock.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP6/2/055A

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316267 N:683329
DATE STARTED 13/11/12 **COMPLETED** 13/11/12
GROUND ELEVATION (mAOD) 3.3 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N-S
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION	
	90-110					0.10 MADE GROUND: Light brown buff coarse SAND and a little fine to medium subangular gravel.	3.20
	95-130		RAD	70		0.25 MADE GROUND: Dark brown SAND and fine angular to subangular clinker GRAVEL.	3.05
	130-180	90-110	RAD	240		MADE GROUND: Dark grey sandy ASH and fine to coarse clinker GRAVEL with shell fragments.	
	130-160	90-150				0.50 ... at 0.3m bgl clinker artefact recovered, identified radium-226, dose rate 128.2nSv/hr.	2.80
						0.55 Orange brown sandy CLAY and subangular sandstone GRAVEL.	2.75
						0.60 Dark blue grey sandy silty CLAY.	2.70
						Trial pit terminated at 0.6m bgl due to obstruction; bedrock.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP6/2/055B

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316259 N:683320
DATE STARTED 13/11/12 **COMPLETED** 13/11/12
GROUND ELEVATION (mAOD) 3.3 m **TEST PIT SIZE** 3.1m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N-S
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	90-130					0.10	MADE GROUND: Light brown/buff coarse SAND and a little fine to medium subangular gravel.	3.20
	120-180	95-110	RAD	180		0.25	MADE GROUND: Dark brown SAND and fine angular to subangular clinker GRAVEL. ... at 0.2m bgl clinker artefact recovered identified radium-226, dose rate 72.0nSv/hr.	3.05
			RAD	1300				
	150-215	95-140				0.45	MADE GROUND: Dark grey sandy ASH and fine to coarse angular clinker GRAVEL. Shell fragments, fine brick and occasional pottery. Interbedded with bands of coarse grey brown SAND.	2.85
						0.60	Orange brown and mid brown sandy CLAY and fine to coarse GRAVEL and boulders of sandstone.	2.70
						0.80	Blue grey silty CLAY and black organic rootlets with a little fine to coarse gravel. (Estuarine alluvium).	2.50
	150	95-110					Trial pit terminated at 0.8m bgl due to obstruction; bedrock.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP6/2/056

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316258 N:683319
DATE STARTED 13/11/12 **COMPLETED** 13/11/12
GROUND ELEVATION (mAOD) 3.707 m **TEST PIT SIZE** 3.2m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N-S
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION	
	55-65						
	60-70	60-70				MADE GROUND: Dark brown sandy silty TOPSOIL and fine to coarse angular to subrounded GRAVEL. Rare bakelite fragment.	
0.30							3.41
			RAD	60		Medium brown silty fine SAND and fine to coarse angular to subrounded sandstone GRAVEL.	
0.60	65-75	60-70					3.11
0.70						Orange brown very sandy CLAY and fine to coarse angular orange brown and red brown gravel, cobbles and boulder lithorelicts. (Weathered sandstone).	3.01
	90-120	60-70				Trial pit terminated at 0.7m bgl due to obstruction; bedrock.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP6/2/056B

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316258 N:683319
DATE STARTED 13/11/12 **COMPLETED** 13/11/12
GROUND ELEVATION (mAOD) 3.7 m **TEST PIT SIZE** 3.2m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 0.70 m / Elev 3.00 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N-S
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION	
						MADE GROUND: Light grey coarse SAND and a little fine to coarse subangular gravel.	
0.20							3.50
	95-140	70-90	RAD	95		MADE GROUND: Dark grey to black sandy fine to coarse angular clinker GRAVEL and shell fragments.	
0.35							3.35
0.45						Dispersed activity no specific point sources recoverable. RT30 identified radium-226, dose rate 64.9nSv/hr.	3.25
	80-100	90-100				Layer thickens to 0.5m bgl towards north of pit.	
0.60							3.10
0.70						Ligth brown buff medium to coarse SAND.	3.00
	90-115	55-80				Orange brown very sandy CLAY and fine to coarse angular sandstone GRAVEL.	
						Brown sandy CLAY and fine to coarse angular sandstone GRAVEL.	
						Trial pit terminated at 0.7m bgl due to obstruction; bedrock.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Slow groundwater seepage at 0.7m bgl.

TRIAL PIT NUMBER TP6/2/057

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316284 N:683314
DATE STARTED 8/11/12 **COMPLETED** 8/11/12
GROUND ELEVATION (mAOD) 3.526 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 0.60 m / Elev 2.93 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N-S
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	60-90					0.10	MADE GROUND: Dark brown sandy silty TOPSOIL and rootlets. Occasional angular to subangular gravel.	3.43
	50-100							
	60-110	70-90	RAD	74		0.30	MADE GROUND: Dark grey to black slightly sandy fine to coarse angular clinker GRAVEL. Thickening to north. Sample recovered from ash horizon.	3.23
			RAD	250		0.40		3.13
			RAD	74			Grey medium to coarse SAND and a little fine to coarse subangular gravel of sandstone. (South of pit).	
	100-130	85-100					Light brown/buff medium to coarse SAND. Thickens to north.	
1							Grey brown silty medium to coarse clayey SAND/sandy CLAY with pockets of yellow brown sandy clay.	
	120-190	80-100				1.10		2.43
							Greenish grey clayey SAND and fine to coarse angular sandstone GRAVEL. (Weathered bedrock).	
						1.50		2.03
	160	80-100	RAD	81			Trial pit terminated at 1.5m bgl due to obstruction; bedrock.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Groundwater seepage at 0.6m bgl.

TRIAL PIT NUMBER TP6/2/058

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316279 N:683308
DATE STARTED 8/11/12 **COMPLETED** 8/11/12
GROUND ELEVATION (mAOD) ____ **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N-S
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
	55-70					Dark brown sandy silty TOPOSIL with roots.
	55-70					
						0.30
	65-85	60-65				Brown sandy SILT and angular GRAVEL, cobbles and boulders of sandstone.
						0.90
1	90-130	55-70				1.00 Light grey clayey SAND.
	120-200	70-90				Orange brown silty sandy CLAY.
						1.30
	170-204	80	RAD	60		... at 1.3m bgl RT30 unable to identify radionucleides.
						Trial pit terminated at 1.3m bgl

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Soils moist between 0.9m and 1.3m bgl.

TRIAL PIT NUMBER TP6/2/059

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316323 N:683305
DATE STARTED 14/11/12 **COMPLETED** 14/11/12
GROUND ELEVATION (mAOD) 3.452 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 1.80 m / Elev 1.65 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N-S
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	65-85		RAD	190		0.15	MADE GROUND: Rough vegetation over root mat and brown silty TOPSOIL with clinker gravel.	3.30
	90-130	70-85					... at 0.1m bgl clinker artefact recovered identified radium-226, dose rate 81.6nSv/hr.	
	80-150	70-90	RAD	345		0.40	MADE GROUND: Dark grey angular fine to medium clinker GRAVEL with occasional pottery, possible asbestos cement board and bone.	3.05
							Clinker artefact recovered identified radium-226, dose rate 181nSv/hr.	
	70-140	70-95					Buff medium to coarse sand in north of pit.	
							Light grey and oranger brown grey clayey SAND and angular to subrounded GRAVEL, cobbles and boulders of sandstone.	
1						1.05		2.40
	180-220	90-110					Light grey slightly clayey fine to medium SAND and fine to coarse subangular sandstone GRAVEL. Local orange brown staining.	
							RT30 identified thorium-232 and potassium-40 at base of pit.	
						1.80		1.65
	140-186	80-110					Trial pit terminated at 1.8m bgl.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Groundwater seepage at 1.8m bgl.

TRIAL PIT NUMBER TP6/2/060

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316353 N:683311
DATE STARTED 8/11/12 **COMPLETED** 8/11/12
GROUND ELEVATION (mAOD) 3.419 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 1.60 m / Elev 1.82 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N-S
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	60-130		RAD	430		0.10	MADE GROUND: Grass over light brown coarse SAND and a little fine to coarse angular gravel.	3.32
	55-80	55-60				0.30	Clinker artefact recovered at surface identified radium-226, dose rate 230.3nGy/hr.	3.12
	70-100	50-65				0.40	MADE GROUND: Buff coarse SAND and a little fine to coarse angular to subangular gravel.	3.02
	90-120		RAD	62		0.47	MADE GROUND: Dark brown ashy medium to coarse SAND and fine to coarse angular to subangular GRAVEL. Occasional pottery and rare bitumen roof sheeting fragment.	2.95
			RAD	65			MADE GROUND: Dark grey to black fine to coarse angular clinker GRAVEL.	
1			RAD	79		0.95	MADE GROUND: Brown coarse SAND and fine to coarse angular to subrounded GRAVEL. Occasional tile, brick and subangular glass fragments.	2.47
	150-200	100-130	RAD	1080			MADE GROUND: Dark brown ashy SAND and fine to medium angular to subrounded GRAVEL of mixed lithology including much clinker, brick and sandstone. ... at 1.0m bgl 3 artefacts recovered, 1 clinker and 2 fine sand, identified radium-226, dose rate 349nGy/hr.	
						1.50		1.92
	150-180	90-120				1.60	Light grey medium to coarse grained SANDSTONE.	1.82
	150-180	70-100					Trial pit terminated at 1.6m bgl due to obstruction; bedrock.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Groundwater seepage at 1.6m bgl.

TRIAL PIT NUMBER TP6/2/061

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316366 N:683300
DATE STARTED 14/11/12 **COMPLETED** 14/11/12
GROUND ELEVATION (mAOD) 3.396 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N-S
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
						0.10	MADE GROUND: Rough vegetation over dark brown silty angular GRAVEL and clinker.	3.30
	100-130	95-120	RAD	85&800		0.25	MADE GROUND: Dark grey to black sandy ASH and fine to coarse angular clinker GRAVEL. Occasional pottery, subangular glass, shells, possible asbestos cement tile and wire.	3.15
	150-230	100-130				0.35	MADE GROUND: Grey coarse SAND and a little fine to medium subangular clinker and mixed gravel.	3.05
	170-230	90-150	RAD	80		0.60	MADE GROUND: Black fine to coarse angular clinker GRAVEL and ASH. Bakelite distributor cap, glass, wire, metal filter housing, perfume bottle, shells and pottery 'NAAFI 1947'.	2.80
						0.80	Orange brown/grey brown sandy CLAY and fine to coarse subangular to subrounded GRAVEL and cobbles.	2.60
1							Orange brown/light grey SAND and fine to coarse angular sandstone GRAVEL and cobbles.	
	120-160	60-80	RAD	92				
						1.45	... at base of pit RT30 identified potassium-40.	1.95
							Trial pit terminated at 1.45m bgl due to obstruction; bedrock.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.
5. Clinker artefact (count rate of 3400cps) recovered from surface 5m to south west of pit, RT30 identified radium-226, dose rate 2.2uSv/hr.

TRIAL PIT NUMBER TP6/2/062

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316386 N:683309
DATE STARTED 9/11/12 **COMPLETED** 9/11/12
GROUND ELEVATION (mAOD) 2.62 m **TEST PIT SIZE** 5.1m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 0.40 m / Elev 2.22 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N-S
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	80-100					0.10	MADE GROUND: Grey brown coarse SAND and fine to coarse angular to subrounded GRAVEL including clinker, occasional glass and pottery and rare linoleum tile. at 0.08m bgl clinker artefact recovered identified radium-226, dose rate 218.6nGy/hr.	2.52
	90-125	80-100	RAD	437			MADE GROUND: North of pit: Dark grey sandy ASH and fine to coarse clinker GRAVEL with light blue battery remains and occasional glass. South of pit: Grey clayey sandy SILT and a litlle fine to coarse subangular gravel.	
	90-125	80-100						
	90-120	120	RAD	180		0.60		2.02
	100-140	140				0.70	Light grey and buff fine grained SANDSTONE.	1.92
	100-125	170						

Trial pit terminated at 0.7m bgl due to obstruction; bedrock.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Groundwater seepage at 0.4m bgl.

TRIAL PIT NUMBER TP6/2/063

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316389 N:683295
DATE STARTED 9/11/12 **COMPLETED** 9/11/12
GROUND ELEVATION (mAOD) 3.604 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N-S
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
	70-115	80-100	RAD	250		MADE GROUND: Leaf litter and root mat over dark grey to black ASH and fine to coarse angular clinker GRAVEL with fragments of pottery, subangular glass, tile, possible asbestos cement tile, brick, shells, plastic sheet, wire, bakelite and hose. Interbedded with coarse grey brown SAND.
			RAD	80		
			RAD	85		
						4 layers of sand and 4 layers of ash/clinker typically 0.05m to 0.1m thick. Layers dip seawards.
						... at 0.1m bgl clinker artifact recovered identified radium-226 113.8nGy/hr.
	210	90-130				
1						
1.10						2.50
	120-160	90-110				Buff and orange brown fine to medium SAND and fine to coarse angular sandstone GRAVEL. (Weathered bedrock).
1.45						2.15
	120-160					Trial pit terminated at 1.45m bgl due to obstruction; bedrock.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater encountered.
5. Clinker artefact (count rate of 300cps) recovered from restored surface of pit, RT30 identified radium-226, dose rate 100.9nGy/hr.

TRIAL PIT NUMBER TP6/2/064

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316413 N:683300
DATE STARTED 9/11/12 **COMPLETED** 9/11/12
GROUND ELEVATION (mAOD) 2.8 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 0.80 m / Elev 2.00 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N-S
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	80-95					0.20	MADE GROUND: Grey brown coarse SAND and fine to coarse angular to subrounded GRAVEL. Occasional brick.	2.60
	120-140					0.25	MADE GROUND: Grey and black sandy fine angular to subangular clinker GRAVEL.	2.55
	180	100-110	RAD	87			MADE GROUND: North of pit: Brown and black firm to stiff sandy silty CLAY and a little fine to medium subangular to subrounded gravel. (Reworked alluvium).	
			RAD	2600, 2540 & 370		0.50	South of pit: Brown sandy CLAY and GRAVEL.	2.30
			RAD	89			MADE GROUND: Loose dark grey and black sandy ASH and fine to coarse angular to subangular GRAVEL of clinker, glass, pottery and brick. Interbedded with brown sand. 2 ash bands 0.05m to 0.1m thick. Ceramic cap 'Ohmite mfg Co Chicago' and glass jar 'innoxa'.	
1		110					... at 0.5m bgl 2 clinker artefacts recovered RT30 identified radium-226, dose rate 1.1nGy/hr.	
		110				1.05		1.75
	150-300	150					Dark blue grey to black silty CLAY. (Estuarine alluvium). RT30 identified thorium-232 and potassium-40.	
						1.50		1.30
			RAD	87			Trial pit terminated at 1.5m bgl.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Groundwater inflow at 0.8m bgl.

TRIAL PIT NUMBER TP6/2/065

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316418 N:683287
DATE STARTED 9/11/12 **COMPLETED** 9/11/12
GROUND ELEVATION (mAOD) 3.677 m **TEST PIT SIZE** 5.5m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NNE-SSW
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	50-90		RAD	600				
	50-90					0.20	MADE GROUND: South south west of pit: Dark brown sandy silty TOPSOIL and cobbles and boulders of sandstone. North north east of pit: Dark brown silty TOPSOIL to 0.1m bgl.	3.48
	150-170	70-100	RAD	1050&8080				
	250	80-110	RAD	80		0.40	MADE GROUND: Dark grey to black sandy ASH and fine to medium angular clinker GRAVEL interbedded with light brown SAND. Fragments pottery 'NAAFI' dated 1950.	3.28
							MADE GROUND: Coarse angular clinker GRAVEL and shell remains.	
	130-150					0.80		2.88
						0.90	Brown medium SAND and fine to coarse GRAVEL, cobbles and boulders of sandstone.	2.78
1			RAD			1.00	Dark blue grey firm to stiff friable CLAY and a little fine subangular to subrounded gravel.	2.68

Trial pit terminated at 1.0m bgl.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP7/2/066

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316187 N:683370
DATE STARTED 12/11/12 **COMPLETED** 12/11/12
GROUND ELEVATION (mAOD) 2.456 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N-S
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	90-110					0.10	MADE GROUND: Grey coarse SAND and fine to coarse angular clinker GRAVEL.	2.36
			RAD	82		0.20	MADE GROUND: Dark grey sandy ASH and fine to coarse angular clinker GRAVEL.	2.26
	100-150	100	RAD	650		0.25	Black organic decayed plant remains (PEAT).	2.21
							Grey and greenish grey sandy silty CLAY and fine to coarse angular to subrounded GRAVEL and cobbles.	
							... from 0.4m bgl becoming blue grey.	
1						1.00	... at base of pit RT30 identified potassium-40.	1.46
	200-240	120-160	RAD	80			Trial pit terminated at 1.0m bgl.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP7/2/067

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316200 N:683392
DATE STARTED 12/11/12 **COMPLETED** 12/11/12
GROUND ELEVATION (mAOD) 1.82 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NE-SW
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
	75-85					
	90-110	85-100	RAD	85	0.15	Grey brown clayey silty SAND and fine to coarse angular to subrounded GRAVEL and cobbles. 1.67
	95-140	85-100	RAD	85		Grey sandy silty CLAY/clayey silty SAND and fine to coarse angular to subangular gravel, cobbles and boulders of dark grey crystalline dioritic rock and light grey sandstone.
	125-160	85-100				
1						
	140-180	100-120				... at 1.05m bgl RT30 identified potassium-40.
					1.85	-0.03
	120-170	80-110				Trial pit terminated at 1.85m bgl due to obstruction (bedrock).

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Slight groundwater seepages.

TRIAL PIT NUMBER TP7/2/068

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316239 N:683340
DATE STARTED 6/11/12 **COMPLETED** 6/11/12
GROUND ELEVATION (mAOD) 2.99 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N-S
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION	
	75-100					0.10 MADE GROUND: Buff medium to coarse SAND and fine to coarse angular to subrounded mixed gravel and clinker.	2.89
	80-110	70-80	RAD			0.30 MADE GROUND: Buff/ligth brown medium to coarse SAND and a little medium to coarse subangular to subrounded gravel.	2.69
	90-130	60-90	RAD	230		0.40 MADE GROUND: Dark brown and grey sandy fine to coarse angular clinker GRAVEL with some wire.	2.59
	90-110	70-90				Greenish grey crystalline dioritic rock with orange brown sandy fine to coarse sandstone GRAVEL pockets.	
	120	70-90				0.90	2.09
	120-140					Trial pit terminated at 0.9m bgl.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP7/2/069

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316250 N:683358
DATE STARTED 7/11/12 **COMPLETED** 7/11/12
GROUND ELEVATION (mAOD) 1.7 m **TEST PIT SIZE** 0.5m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Hand Pit
AT TIME OF EXCAVATION 1.00 m / Elev 0.70 m
LOGGED BY NEWSC
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N/A
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
1	80-90	90-100			1.00	Soft grey sandy gravelly silty CLAY. Gravel is fine to coarse subrounded of sandstone. Occasional cobbles and boulders. 0.70
	80-90					Hand pit terminated at 1.0m bgl.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Slight groundwater ingress at 1.0m.

TRIAL PIT NUMBER TP7/2/070

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316285 N:683324
DATE STARTED 6/11/12 **COMPLETED** 6/11/12
GROUND ELEVATION (mAOD) 2.579 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NNE-SSW
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	80-120					0.10	MADE GROUND: Brown/grey brown coarse SAND and fine to coarse angular to subrounded GRAVEL of mixed lithology including clinker.	2.48
	90-170	100-130	RAD	94		0.25	MADE GROUND: Dark grey sandy fine to coarse angular clinker GRAVEL.	2.33
			RAD	204		0.35	... at 0.25m bgl clinker artefact recovered, RT30 identifed radium-226, dose rate 84.1nGy/hr.	2.23
	110-120	80-110	RAD	91			Buff orange brown coarse SAND with angular sandstone gravel and cobbles.	
						0.60	Greenish brown silty sandy CLAY with occasional fine rootlets.	1.98
	120-160	70-90					Light grey sandy angular GRAVEL, cobbles and boulders of sandstone. (Weathered bedrock).	
1								
		90-120	RAD	90		1.25	... at 1.2m bgl RT30 identifed potassium-40.	1.33
							Trial pit terminated at 1.25m bgl due to obstruction; bedrock.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP7/2/071

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316343 N:683325
DATE STARTED 7/11/12 **COMPLETED** 7/11/12
GROUND ELEVATION (mAOD) 1.5 m **TEST PIT SIZE** 0.5m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Hand Pit
AT TIME OF EXCAVATION ---
LOGGED BY NEWSC
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N/A
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
	80-90					Soft grey brown gravelly sandy silty CLAY. Gravel is coarse subangular to subrounded of sandstone. Occasional cobbles and boulders.
		80-90				
0.80						0.70
		80-90				Hand pit terminated at 0.8m bgl due to collapse.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP7/2/072

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316355 N:683317
DATE STARTED 6/11/12 **COMPLETED** 6/11/12
GROUND ELEVATION (mAOD) 2.75 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 0.35 m / Elev 2.40 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NNE-SSW
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION	
						MADE GROUND: Grey brown coarse SAND and fine to coarse angular to subangular GRAVEL of mixed lithology including clinker.	
0.20			RAD	82			2.55
0.25						MADE GROUND: Light grey coarse SAND.	2.50
0.35	90-130	70-90				MADE GROUND: Grey brown clayey SAND and a little angular clinker gravel.	2.40
0.45			RAD	82		MADE GROUND: Grey clayey sandy SILT and fine to coarse angular to subangular GRAVEL and cobbles of mixed lithology including sandstone.	2.30
0.60	90-145	80-100	RAD	80		Grey/dark grey sandy fine to medium gravel and clinker with rare subangular glass fragments.	2.15
		80-100				Dark grey sandy angular sandstone BOULDERS. (Weathered sandstone).	
0.90	100-150	70-100					1.85

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Groundwater seepage at 0.35m bgl.

TRIAL PIT NUMBER TP7/2/073

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316436 N:683259
DATE STARTED 7/11/12 **COMPLETED** 7/11/12
GROUND ELEVATION (mAOD) 3.75 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION E-W
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
			RAD	1400		0.20	MADE GROUND: Dark brown sandy silty TOPSOIL and fine to coarse angular to subangular GRAVEL with occasional bricks 'Lochside'.	
	100-160	90-100					... at 0.08m bgl clinker artefact recovered, RT30 identified radium-226, dose rate 614.4nGy/hr.	3.55
	140-180	90-110					MADE GROUND: Dark grey sandy silty ASH and fine to coarse angular clinker GRAVEL. Occasional possible asbestos cement board and rare glass. Possible dispersed low activity point sources.	
			RAD			0.60		3.15
	200-230	100-160					MADE GROUND: Dark grey and black slightly coarse sandy fine to coarse clinker GRAVEL with much burnt shale and occasional possible asbestos cement tile, green insulated wire and sandstone boulder.	
	200-290	100-130	RAD	622			... between 0.7m and 0.8m very sandy clinker band.	
			RAD				... at 0.7m bgl clinker artefact recovered, RT30 identified radium-226, dose rate 239.1nGy/hr.	
1								
	100-140	110-140					... at 1.1m bgl slight subrounding on glass fragments and light blue battery waste fragments.	
	215-340	110-190						
			RAD	660		1.60	... at 1.5m bgl clinker artefact recovered, RT30 identified radium-226, dose rate 240.1nGy/hr.	2.15
			RAD			1.70	Buff/cream fine to medium SANDSTONE.	2.05

Trial pit terminated at 1.7m bgl due to obstruction; bedrock.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.
5. Clinker artefact (450cps) recovered from surface 2m east of pit, RT30 identified radium-226, dose rate 230.1nGy/hr.

TRIAL PIT NUMBER TP7/2/074

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316449 N:683253
DATE STARTED 7/11/12 **COMPLETED** 7/11/12
GROUND ELEVATION (mAOD) 2.35 m **TEST PIT SIZE** 3.0m x 1.0m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION E-W
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
						0.20	MADE GROUND: Brown/grey coarse SAND and fine to coarse angular to subrounded GRAVEL and cobbles of mixed lithology including sandstone, clinker, possible asbestos cement board and brick. Some red paint flecks.	2.15
	120-170	80-100	RAD	90			MADE GROUND: Dark grey sandy fine to coarse ASH and angular clinker GRAVEL. Occasional pottery, burnt aluminium, green paint flecks, subangular glass, wire and brick. Possible distributed low activity sources throughout horizon.	
	130-200	90-130				0.55	... between 0.35m and 0.55m bgl less sandy clinker gravel lens thinning to east.	1.80
			RAD	990			... at 0.5m bgl clinker artefact recovered, RT30 identified radium-226, dose rate 311.8nGy/hr.	
	190-250	150-170						
	300	170				0.80	MADE GROUND: Grey coarse SAND and fine to coarse angular to subangular GRAVEL of mixed lithology including clinker.	1.55
	190-250	140	RAD	2300			... at 0.75m bgl clinker artefact recovered, RT30 identified radium-226, dose rate 1uGy/hr.	
1						1.10	MADE GROUND: Dark grey sandy fine to coarse angular clinker GRAVEL. Occasional glass, possible asbestos cement tile, linoleum fragment, battery remains, ceramic fuse housing, reinforced hose (0.5m length). Rare wood and round gasket (0.1m diameter).	1.25
	150-220	140						
			RAD	87		1.30	Buff/orange brown fine to medium SANDSTONE.	1.05
		90-100					Trial pit terminated at 1.3m bgl due to obstruction; bedrock.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP7/2/075

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316448 N:683224
DATE STARTED 2/11/12 **COMPLETED** 2/11/12
GROUND ELEVATION (mAOD) 2.05 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 0.40 m / Elev 1.65 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION E-W
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	90-110		RAD			0.20	MADE GROUND: Grey coarse SAND and fine to coarse angular to subrounded GRAVEL of mixed lithology inlcuding sandstone, clinker, brick, glass and pottery.	1.85
	100-150	90-110	RAD				MADE GROUND: Dark grey ASH and fine to coarse angular clinker GRAVEL. Occasional electrical component, wire, glass, possible asbestos cement board. Pottery marked 'ER 1954'.	
	100-120	90-130				0.80		1.25
	100-200	90-110	RAD	90		0.90	Light grey very shelly SILT (Estuarine alluvium).	1.15
1						1.00	Grey very silty fine to medium SAND with occasional shell fragments.	1.05
	130-200	90-95	RAD	90			Trial pit terminated at 1.0m bgl.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Groundwater strike at 0.4m bgl.

TRIAL PIT NUMBER TP7/2/076

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316450 N:683205
DATE STARTED 5/11/12 **COMPLETED** 5/11/12
GROUND ELEVATION (mAOD) 3.6 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 0.15 m / Elev 3.45 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION E-W
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	80-85					0.15	MADE GROUND: Grey brown coarse SAND and fine to coarse angular to subrounded GRAVEL of mixed lithology.	3.45
	120-190	80-100					MADE GROUND: Dark grey sandy angular fine to coarse clinker GRAVEL. Occasional glass, brick, possible asbestos cement board and wire.	
	100-290	80-100	RAD					
		100-140						
			RAD	14000			... at 0.7m bgl 3 artefacts recovered from east of pit; clinker 7000cps, clinker 13000cps and paint flecks 600cps. RT30 all identified radium-226, dose rate 8.2uSv/hr.	
						0.90	... at 0.8m bgl much wire, linoleum tile fragments, rubber and possible asbestos cement board.	2.70
1							Dark grey sandy very clayey SILT and a little subangular to subrounded fine to medium GRAVEL.	
						1.60		2.00
						1.70	Angular boulders of light grey medium grained SANDSTONE.	1.90
	80-100	90-135					Trial pit terminated at 1.7m bgl due to obstruction; bedrock.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Groundwater inflow at 0.15m bgl.
5. Clinker artefact, count rate 300cps recovered from restored surface of pit.

TRIAL PIT NUMBER TP7/2/077

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316481 N:683208
DATE STARTED 5/11/12 **COMPLETED** 5/11/12
GROUND ELEVATION (mAOD) 1.2 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 0.10 m / Elev 1.10 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION E-W
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
	55-62	65-80				MADE GROUND: Grey very shelly sandy SILT and fine to coarse angular to subangular GRAVEL. Occasional glass fragments. 0.20
			RAD	57		Grey sandy SILT and a little angular to subrounded gravel with occasional shell fragments. 1.00
	150-180	60-85	RAD	50		
1						... from 0.9m bgl becoming silty SAND. 1.05
	100-125	60-80				0.15

Trial pit terminated at 1.05m bgl due to obstruction.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Groundwater inflow at 0.1m bgl.

TRIAL PIT NUMBER TP7/2/078

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316521 N:683203
DATE STARTED 5/11/12 **COMPLETED** 5/11/12
GROUND ELEVATION (mAOD) 1.05 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 0.10 m / Elev 0.95 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION E-W
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
			RAD	62		0.10	MADE GROUND: Grey and dark grey/black organic ashy shelly sandy SILT and fine to coarse angular GRAVEL and cobbles of mixed lithology. Much possible asbestos cement boarse, tile, sandstone and pottery.	0.95
	100-140	70-90					Grey brown silty CLAY and fine to coarse angular to subangular GRAVEL.	
						0.45		0.60
	150-170	75-105					Stiff dark grey friable slightly sandy silty CLAY/clayey SILT with a little subangular gravel.	
	160-195	80-100	RAD	65				
1								
						1.15		-0.10
			RAD	62		1.25	Light grey medium to coarse SANDSTONE. At 1.25m bgl. RT30 identified potassium-40. Trial pit terminated at 1.25m bgl due to obstruction; bedrock.	-0.20
	180-190	80-90						

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Groundwater inflow at 0.1m bgl.

TRIAL PIT NUMBER TP7/2/079

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316493 N:683179
DATE STARTED 5/11/12 **COMPLETED** 5/11/12
GROUND ELEVATION (mAOD) 3.8 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION E-W
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION
	95-150	80-100	RAD	71		0.30	MADE GROUND: Grey SAND and angular to subrounded GRAVEL of mixed lithology including sandstone, brick, clinker, pottery and glass. 3.50
			RAD	600&900			MADE GROUND: Dark grey to black ashy sandy fine to coarse clinker GRAVEL with glass, leather shoe, pottery and bakelite artefact, labelled '15'".
	100-190	80-100	RAD	80		0.55	... at 0.4m bgl 2No. clinker artefacts recovered 600cps & 900cps, RT30 identified radium-226, dose rate 191nGy/hr. 3.25
	100-200	80-100	RAD	80			Soft to firm grey very clayey sandy SILT with a little fine to medium angular to subrounded gravel and shells.
1	110-150	140					... at 1.5m bgl RT30 identified potassium-40 and thorium-232.
						1.70	2.10
						1.85	Angular SANDSTONE boulders. 1.95
	220						Trial pit terminated at 1.85m bgl due to obstruction; bedrock.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.
5. Upper sand thins to east to 0.1m bgl.

TRIAL PIT NUMBER TP7/2/080

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316515 N:683178
DATE STARTED 5/11/12 **COMPLETED** 5/11/12
GROUND ELEVATION (mAOD) 2.15 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION E-W
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
			RAD	1067			MADE GROUND: Grey ashy SAND and fine to coarse angular to subrounded GRAVEL and cobbles of mixed lithology including brick, clinker, pottery, glass and possible asbestos cement board.	
	90-140	80-160	RAD	85			... at 0.05m bgl clinker artefact recovered, RT30 identified radium-226, dose rate 388nGy/hr.	1.75
						0.40		
	95-260	70-100					MADE GROUND: Dark grey to black sandy fine angular GRAVEL and clinker.	
						0.70	... between 0.6m and 0.7m bgl soils becoming clayey.	1.45
	95-120	75-100					Light brown/cream silty coarse SAND and fine to coarse subrounded GRAVEL and cobbles.	
			RAD	94		0.90		1.25
1			RAD	91		1.00	Firm brown gravelly sandy CLAY.	1.15
	85-100	75-85					Trial pit terminated at 1.0m bgl due to obstruction, possible bedrock.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP7/2/081

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316518 N:683125
DATE STARTED 2/11/12 **COMPLETED** 2/11/12
GROUND ELEVATION (mAOD) -0.1 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 0.30 m / Elev -0.40 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NNW-SSE
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	100-190						MADE GROUND: Sand and cobbles of mixed lithology over grey brown SAND and fine to coarse angular to subangular GRAVEL of clinker, glass, pottery 'NAAFI', ointment jar, possible asbestos cement board and bakelite switch. Possible multiple low activity sources distributed throughout ash layer.	
	550	200-250	RAD	1000			... at 0.2m bgl 2No. clinker artefacts recovered, RT30 identified radium-226, dose rate 293.2nSv/hr.	
			RAD	3900				
	200-250	110-140	RAD	1000		0.60	... at 0.5m bgl clinker artefact recovered, RT30 identified radium-226, dose rate 407.9nSv/hr.	-0.70
	200-240	100-130	RAD	390			Light grey sandy SILT and subangular to subrounded boulders and cobbles of sandstone.	
1								
	120-150	100-120				1.20		-1.30
	190-260	100-120					Trial pit terminated at 1.2m bgl due to obstruction, possible bedrock.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Groundwater seepage at 0.3m bgl.

TRIAL PIT NUMBER TP7/2/082

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316488 N:683131
DATE STARTED 1/11/12 **COMPLETED** 1/11/12
GROUND ELEVATION (mAOD) 3.275 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 1.30 m / Elev 1.98 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NNW-SSE
AFTER EXCAVATION 1.30 m / Elev 1.98 m

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	110-140		RAD	86		0.35	MADE GROUND: Loose sandy grey fine to coarse angular to subrounded GRAVEL of mixed lithology including sandstone, clinker, glass, wire, tile and earthenware.	2.93
	190-270	100-130	RAD	90			MADE GROUND: Dark grey sandy ASH and clinker GRAVEL. Gravel is fine to coarse clinker, decayed battery remains, pottery glass, tile, brick, possible asbestos cement tile and light bulb. Layering of ash/clinker in 0.3m thick layers.	
	270-340	100-160						
1	320-400	170-190	RAD	2100&300			... at 0.9m bgl 2No. clinker artefacts recovered, RT30 identified both as radium-226.	
	310-330	130-170	RAD	1800			... at 1.1m bgl clinker artefact recovered, RT30 identified radium-226.	
						1.30	... from 1.1m bgl becoming light brown sandy ash with angular clinker gravel.	1.98
	290	130-170					Trial pit terminated at 1.3m bgl due to obstruction, possible bedrock.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Standing water at 1.3m bgl.
5. Clinker artefact (1270cps) recovered at surface from 1m north of pit, RT30 identified radium-226.

TRIAL PIT NUMBER TP7/2/083

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316493 N:683099
DATE STARTED 1/11/12 **COMPLETED** 1/11/12
GROUND ELEVATION (mAOD) -0.6 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 0.60 m / Elev -1.20 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NNW-SSE
AFTER EXCAVATION 0.60 m / Elev -1.20 m

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	150-200	110-150	RAD	1160			MADE GROUND: Surface cover of cobbles and boulders of mixed lithology including sandstone, brick, fragments of pottery, glass, reinforced glass, tile, clinker and wire. Grey/brown-grey SAND and GRAVEL. Sand is ash, gravel is fine to cobble of angular to sub	
			RAD					
	150-200	100-150				0.35	rounded brick (Lockside), pottery, glass.	-0.95
			RAD	700&1680			... clinker artefact recovered from 0.1m bgl, RT30 identifed radium-226, dose rate 599 nSv/hr, 1000cps	
	120-220	90-110	RAD	100			... 2No. clinker artifacts recovered from 0.35m bgl count rate 700cps & 1680cps, RT30 identifed radium-226, dose rate 623.8 uSv/hr in later.	
	150-650	90-130				0.80	Greenish brown silty medium coarse SAND.	-1.40
	120-150	85-130					Trial pit terminated at 0.80m bgl. due to obstruction. Possible sandstone bedrock.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Groundwater standing at 0.6m bgl.

TRIAL PIT NUMBER TP7/2/084

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316492 N:683065
DATE STARTED 29/10/12 **COMPLETED** 29/10/12
GROUND ELEVATION (mAOD) -0.6 m **TEST PIT SIZE** 2.0m x 0.6m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N-S
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
	85-95		RAD	340		MADE GROUND: Grey SAND and GRAVEL. Gravel is coarse, angular, sub rounded. Cobbles of sandstone, brick, occasional metal tube (flare casing?). Concrete core 0.1m diameter x 0.3m. Fragments of pottery, wire, reinforced glass, metal pipe. Much clinker, ash below 0.2m, slightly darker grey.
			RAD	410		
	90-110		RAD	1440		
	90-120					
	130-150					... clinker artefact recovered from 0.2m bgl count rate 1440, RT30 identifed radium-226, dose rate 1uSv/hr.
	120-140					
	90-130		RAD	75-85		
0.75						-1.35
	130-175					Trial pit terminated at 0.75m bgl. due to tidal inundation.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Soils saturated. Standing water at ground level.

TRIAL PIT NUMBER TP7/2/085

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316474 N:683032
DATE STARTED 31/10/12 **COMPLETED** 31/10/12
GROUND ELEVATION (mAOD) -1.1 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 0.20 m / Elev -1.30 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NW-SE
AFTER EXCAVATION 0.20 m / Elev -1.30 m

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
	80-120		RAD	550		MADE GROUND: Grey brown ashy sandy sub-angular to sub-rounded GRAVEL, cobbles and boulders, some clinker, brick, pottery fragments, metal bolt, wire reinforced glass, tile, asbestos cement tile.
	90-140	80-100				
	100-270	80-100	RAD	80		... becoming orange-brown at 0.4m bgl.
	100-660	80-100	RAD	1020 & 30000		... darker ash and clinker gravel with many asbestos cement tile fragments at 0.7m bgl.
						... clinker artefacts recovered from 0.7m bgl 1020cps & 30, 000cps, RT30 identifed radium-226, dose rate 31.4 uSv/hr.
0.90						-2.00
1			RAD	85		Dark grey and greenish grey laminated organic clayey sandy SILT (Estuarine/alluvium).
	160-190	100-130				
1.30						-2.40
	130-160	80-120				Trial pit terminated at 1.30m bgl. due to obstruction, possible bedrock.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Standing water at 0.2m bgl. Hydrocarbon sheen when organic Estuarine deposits encountered.
5. Artefact (550cps at surface) recovered from backfilled trialpit on surface on backfilling.

TRIAL PIT NUMBER TP7/2/086

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316442 N:683001
DATE STARTED 30/10/12 **COMPLETED** 30/10/12
GROUND ELEVATION (mAOD) -1.1 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 0.20 m / Elev -1.30 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NW-SE
AFTER EXCAVATION 0.20 m / Elev -1.30 m

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	65-80	65-80	RAD	3300			MADE GROUND: Grey coarse SAND and sun-angular fine to coarse GRAVEL, cobbles and boulders, some whole bricks, occasional pottery, ceramic, drain pipes, wire, reinforced glass. Cobbles of grey lime. Much slag and clinker. Brick on surface marked "Electric cable Reg: 839159".	
			RAD	770 & 730				
	70-100	70-100	RAD	50-60				
	70-100	70-100				0.70	... 270cps in north of pit at 0.65m bgl. Asbestos tile.	-1.80
	120-150	70-100	RAD	65 & 10000		0.80	... Paste jar at 0.7m bgl. 700cps in north of pit.	-1.90
	80-120		RAD	65		0.95	... clinker artefact recovered from 0.7m/0.8m bgl 10000cps, RT30 identified Radium-226.	-2.05
	70-80						Greenish brown medium to coarse SAND and a little sub-rounded to sub-angular gravel. ... clinker artifact recovered from 0.8m, RT30 identifed radium-226, dose rate 5.1 uSv/hr, 1300cps.	
							Grey clayey SILT and fine sub-angular GRAVEL with shells and shell fragments. Trial pit terminated at 0.95m bgl.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Groundwater level at 0.2m bgl.
5. Artifact (3300cps at surface) recovered from backfilled material, RT30 identified radium-226, dose rate 1.3uSv/hr.

TRIAL PIT NUMBER TP8/1/087

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316333 N:683005
DATE STARTED 25/10/12 **COMPLETED** 25/10/12
GROUND ELEVATION (mAOD) ____ **TEST PIT SIZE** 2.0m x 1.0m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NE-SW
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
	660 / 750	60-200	RAD	92		0.15 Buff coarse SAND and sub-angular to sub-rounded cobbles and gravel of sandstone. Locally black staining (ash?) on south face of pit. RT30 identified Radium-226, dose rate 103.5 nSv/hr. 100cps on boulder, possible dark grey smeared organic material. Trial pit terminated at 0.15m bgl. due to tidal ingress.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Standing water at ground level.

TRIAL PIT NUMBER TPNH/088

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316246 N:683233
DATE STARTED 6/11/12 **COMPLETED** 6/11/12
GROUND ELEVATION (mAOD) ____ **TEST PIT SIZE** 0.5m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Hand Pit
AT TIME OF EXCAVATION 0.50 m
LOGGED BY NEWSC
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N/A
AFTER EXCAVATION 0.50 m

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
	50-65					Soft brown SAND with roots.
						0.20
						Loose brown yellow fine to coarse SAND. Water ingress at 0.5m bgl.
	60-80					
1						1.00
	60-80					Trial pit terminated at 1.0m bgl. due to pit collapsing (due to ingress of water).

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Groundwater ingress at 0.5m.

TRIAL PIT NUMBER TPNH/089

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316362 N:683249
DATE STARTED 6/11/12 **COMPLETED** 6/11/12
GROUND ELEVATION (mAOD) ____ **TEST PIT SIZE** 0.5m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Hand Pit
AT TIME OF EXCAVATION ---
LOGGED BY NEWSC
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N/A
AFTER EXCAVATION 0.50 m

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
	40-50					Soft black brown TOPSOIL.
						0.50
	70-80		RAD			Dense yellow grey SAND with frequent cobbles of weak sandstone. Sand is fine to coarse.
1						1.00
	70-80		RAD			Trial pit terminated at 1.0m bgl. due to pit collapsing.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Slight groundwater seepage at 0.5m bgl.

TRIAL PIT NUMBER TPNH/090

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316433 N:683316
DATE STARTED 7/11/12 **COMPLETED** 7/11/12
GROUND ELEVATION (mAOD) 1.1 m **TEST PIT SIZE** 0.5m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Hand Pit
AT TIME OF EXCAVATION ---
LOGGED BY NEWSC
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N/A
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
	55-65		RAD	65		Grey brown coarse silty SAND with frequent cobbles and boulders of sandstone.
0.50						
	55-65		RAD	65		Trial pit terminated at 0.5m bgl. due to obstruction.
0.60						

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TPNH/091

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316466 N:683289
DATE STARTED 7/11/12 **COMPLETED** 7/11/12
GROUND ELEVATION (mAOD) 1.1 m **TEST PIT SIZE** 0.5m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Hand Pit
AT TIME OF EXCAVATION ---
LOGGED BY NEWSC
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N/A
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	50-70		RAD	70		0.10	Dense grey brown sandy SILT with shells and cobbles/boulders of sandstone.	1.00
	60-70		RAD	70			Grey brown silty sandy CLAY with frequent boulders of sandstone.	
	60-70		RAD	70		0.50		0.60

Trial pit terminated at 0.5m bgl. due to obstruction.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TPNH/092

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316472 N:683247
DATE STARTED 7/11/12 **COMPLETED** 7/11/12
GROUND ELEVATION (mAOD) 1.1 m **TEST PIT SIZE** 0.5m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Hand Pit
AT TIME OF EXCAVATION ---
LOGGED BY NEWSC
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N/A
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
	70-80					Fine to coarse grey brown silty gravelly SAND. Gravel is fine to coarse sub-rounded to angular sandstone and shell fragments.
			RAD	80		
0.50						0.60
	70-80					Trial pit terminated at 0.5m bgl. due to rock obstruction.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TPNH/093

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316528 N:683223
DATE STARTED 7/11/12 **COMPLETED** 7/11/12
GROUND ELEVATION (mAOD) 0.55 m **TEST PIT SIZE** 0.5m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Hand Pit
AT TIME OF EXCAVATION ---
LOGGED BY NEWSC
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N/A
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
	50-70		RAD	70		Soft brown silty gravelly fine to coarse SAND. Gravel is subrounded fine to coarse.
0.20	60-70					0.35
						Trial pit terminated at 0.2m bgl. due to water.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TPNH/094

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316545 N:683154
DATE STARTED 2/11/12 **COMPLETED** 2/11/12
GROUND ELEVATION (mAOD) -0.147 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 0.10 m / Elev -0.25 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NW-SE
AFTER EXCAVATION 0.10 m / Elev -0.25 m

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION	
	50-60		RAD	60		0.02 Grey brown medium SAND.	-0.17
	75-80		RAD	80		0.15 Dark grey medium to coarse SAND.	-0.30
			RAD	80		0.25 Grey shelly silty medium to coarse SAND.	-0.40
	75-90		RAD	90		0.30 Greenish grey silty SAND. Angular gravel of sandstone (weathered bedrock). Trial pit terminated at 0.3m bgl. due to bedrock.	-0.45

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Groundwater ingress at 0.1m bgl.

TRIAL PIT NUMBER TPNH/095

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316415 N:683106
DATE STARTED 22/10/12 **COMPLETED** 22/10/12
GROUND ELEVATION (mAOD) 6.936 m **TEST PIT SIZE** 2.9m x 0.6m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 1.30 m / Elev 5.64 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N-S
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION	
	45		RAD			MADE GROUND: Grass over dark grey-brown sandy TOPSOIL. Occasional rare fine ash, occasional fine to coarse gravel.	
	45					... becoming brown silty fine to medium SAND, occasional rootlets (disturbed).	
	40-45						
	40-45						
	40-45					... becoming light brown below 0.83m	
1							5.94
	40-45		RAD			Dense light brown strong sandstone in sand matrix. Brick fragments at 1.0m (possibly dislodged from strata above at 0.3m bgl.). Pockets of yellow brown and orange brown sand, brown angular stone boulders.	
	40-45						
	40-45						
	40-45						
	45-50						5.27

1.00

1.67

Trial pit terminated at 1.67m bgl. due to obstruction.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Groundwater seepage at 1.3m bgl.
5. Slight pit instability GL-1.67m.

TRIAL PIT NUMBER TPNH/096

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316403 N:683065
DATE STARTED 23/10/12 **COMPLETED** 23/10/12
GROUND ELEVATION (mAOD) 6.3 m **TEST PIT SIZE** 3.5m x 0.6m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N-S
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION	
	70-100					MADE GROUND: Grass over dark grey silty sandy ashy TOPSOIL and fine to coarse angular to sub-rounded GRAVEL and clinker. Rootlets and roots to 2cm diameter. Rare pottery fragments.	
	80-120		RAD				
			RAD	320			0.20
						... semi-circular metal artefact (possible dial backing) recovered from 0.2m bgl. 320cps.	0.30
	65-80					Loose grey brown silty medium SAND and fine to medium angular to sub-rounded gravel.	6.10
	75-80					Light grey brown/orange brown silty medium SAND and angular sandstone gravel.	6.00
	65-75					... difficult excavation below 0.7m bgl. Becoming light orange brown/light grey sandstone and silty medium sand (weathered sandstone).	
1	70-100						
	60-75		RAD				1.20
						Trail pit terminated at 1.2m bgl due to bedrock obstruction.	5.10

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP7/2/097

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316154 N:683420
DATE STARTED 15/11/12 **COMPLETED** 15/11/12
GROUND ELEVATION (mAOD) 2.753 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 0.40 m / Elev 2.35 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION SW-NE
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
			RAD			0.10	MADE GROUND: Brown sandy silt with rootlets.	2.65
	70-100	70-90				0.18	MADE GROUND: Dark grey to black SAND of ASH and fine to medium angular GRAVEL including clinker, angular glass fragment.	2.57
			BULK	60-80		0.27		2.48
	90-190	70-90	RAD	350		0.34	MADE GROUND: Light brown coarse SAND and fine to coarse angular to sub-rounded gravel and asbestos cement tile.	2.41
			RAD	70			MADE GROUND: Dark grey to black ASH and angular clinker GRAVEL. ... metal artefact recovered from 0.3m bgl RT30 identifed radium-226, dose rate 176.5 nSv/hr.	
	90-130	60-80				0.70	Orange brown and grey silty medium to coarse SAND and angular to sub-angular sandstone gravel and cobbles.	2.05
							Trial pit terminated at 0.7m bgl. due to bedrock obstruction.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Groundwater inflow at 0.4m bgl.

TRIAL PIT NUMBER TP7/2/098

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316419 N:682963
DATE STARTED 15/11/12 **COMPLETED** 15/11/12
GROUND ELEVATION (mAOD) ____ **TEST PIT SIZE** 2.6m x 1.4m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 0.30 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NNW-SSE
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION
	50-75		RAD	50		0.02	Brown sandy SILT and cobbles and boulders.
						0.10	Dark grey to black organic silty fine SAND.
	60-90	40-70	RAD	55		0.30	Brown silty medium SAND and fine to medium sub-angular to angular GRAVEL and shell fragments.
						0.40	
	75-130	65-90	RAD	50			Light grey angular sandstone GRAVEL and boulders in fine sand and silt matrix.

... RT-30 identified potassium-40 at 0.4m bgl. in south-east corner of trial pit (146cps).
Trial pit terminated due to obstruction at 0.4m bgl.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Groundwater standing at 0.3m bgl.
5. Asbestos cement tile fragments at surface throughout area.

TRIAL PIT NUMBER TP7/2/099

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316465 N:683009
DATE STARTED 16/11/12 **COMPLETED** 16/11/12
GROUND ELEVATION (mAOD) ____ **TEST PIT SIZE** 3.3m x .07m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 0.30 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NW-SE
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
	50-90					MADE GROUND: Grey coarse sandy angular to sub-angular COBBLES and coarse GRAVEL of mixed lithology including brick and possible asbestos cement tile.
	80-110	70-90				
	70-110	80-110				... round instrument component (AM(Air Ministry) Label), ref no. 5C/859.
	200	80-110	RAD			Pottery, glass bottle (clear glass), wire, reinforced glass fragments.
	80-105	70-90				Black sand, very ashy in north of pit below 0.2m bgl.
			BULK			... Robertson's drink bottle at 0.3m bgl.
	90-180	70-90				Black organic layer at 0.3m bgl. in north-west of pit.
						RRL VIII 303 calibre live blank bullet at 0.3m.
0.80						... complete brown beer bottle (John Bissett, Dunfermline) at 0.5m bgl. Undamaged.
	90-120	70-90				Bedrock at 0.8m bgl, but 0.3m bgl. at shallowest point as uneven bedrock surface.
						Trial pit completed at 0.8m bgl. on encounter of bedrock.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Groundwater standing at 0.3m bgl.

TRIAL PIT NUMBER TP7/2/100

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316472 N:683097
DATE STARTED 20/11/12 **COMPLETED** 20/11/12
GROUND ELEVATION (mAOD) 2.96 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 0.95 m / Elev 2.01 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NW-SE
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	85-100		RAD	650			MADE GROUND: Brown coarse SAND and much angular to sub-angular fine to coarse gravel of mixed lithology including sandstone, brick, clinker, pottery, metal clip, occasional sandstone cobble, glass (sub-angular), brick ('Wemyss'), shells and rod (5mm diameter, 5cm length). Two artefacts from ground level (one sand particle and one greenish clinker), RT30 identified radium-226, dose rate 258.5nSv/hr (650cps).	
			BULK	85				
	90-130	80-90	RAD	350			... artefact from 0.2m bgl, RT 30 identified radium-226, dose rate 225.3nSv/hr (350cps).	
	110-150	80-120				0.65		2.31
	145-172	80-115					MADE GROUND: Grey-brown sandy fine to medium gravel of mixed lithology, including clinker, sandstone, brick and brick fragments, sub-angular wire-reinforced glass fragments, occasional asbestos cement board fragment.	
1	148-222	80-100	RAD	90 & 300		1.00	... lens of sand at 0.8-1.0m in NW corner of pit.	1.96
			BULK				... clinker gravel artefact from 0.95m bgl (250cps) & sand artefact from 0.95m bgl (300cps)	
	150-190	100-150	RAD	200		1.30	MADE GROUND: Dark grey to black and rusty red-brown sandy fine to coarse gravel and cobbles of mixed lithology including brick, glass, clinker, pottery, NAAFI Pottery, Lochside brick, asbestos cement tile, copper. 220 cps located in trial pit wall at 1.0m bgl.	1.66
	120-140		BULK	120			... glass has very slight reworking to sub-angular, wire reinforced glass, drainpipe fragment.	
			RAD	86 & 250			Clinker artefact from 1.20m bgl (250cps) & sand artefact from 1.20m bgl (200cps)	1.46
						1.50	Orange brown coarse sand and fine to medium sub-angular to sub rounded GRAVEL (Beach deposits). RT30 identified potassium-40 & thorium-232.	
							Trial pit aborted at 1.5m bgl. due to obstruction (possible bedrock). Angular buff sandstone cobbles recovered.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Groundwater seepage at 0.95m bgl.
5. Artefact recovered from ground surface at 4m NW of pit (600 cps).

TRIAL PIT NUMBER TP7/2/101

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CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316497 N:683108
DATE STARTED 20/11/12 **COMPLETED** 20/11/12
GROUND ELEVATION (mAOD) ____ **TEST PIT SIZE** 2.9m x 0.7m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 0.55 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NW-SE
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
	85-100		RAD	550		MADE GROUND: Grey-brown coarse SAND and fine to coarse angular to sub-angular GRAVELI and cobbles of mixed lithology including sandstone, bricks, clinker, occasional pottery, glass (sub-angular), wire reinforced glass, clinker boulders. Multiple dispersed low activity point sources.
			BULK			
	130-180	80-100	RAD	98		
			RAD	210 & 360		
			RAD			
	120-170	80-180		560 & 450		
0.30						... artefact from 0.0m bgl, RT30 identified radium-226, dose rate 193.5 nSv/hr (550cps) - 1cm diameter clinker fragment.
0.37						... artefact from between 0.0-0.4m bgl 360cps.
0.60						... artefact from 0.0-0.6m bgl, RT30 identified radium-226, dose rate 91.7 nSv/hr (210cps)
	100-140	100-130				MADE GROUND: Dark fine to medium ashy angular clinker GRAVEL in NW of pit (160cps on sidewall of pit).
						.... artefact from 0.3m bgl, RT30 identified radium-226, dose rate 242.8 nSv/hr (560cps) & 2nd artefact (450 cps).
						MADE GROUND: Grey and orange brown SAND and fine to coarse angular to sub-angular GRAVEL, sandstone, clinker and cobbles as above (0.0-0.3m).
						Trial pit terminated at 0.6m bgl. due to sandstone obstruction, probable bedrock. RT30 identified potassium-40 at 0.6m.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Groundwater inflow at 0.55m bgl.
5. On completion 0.15m clinker artefact (220cps) recovered at ground level.

TRIAL PIT NUMBER TP7/2/102

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316486 N:683188
DATE STARTED 21/11/12 **COMPLETED** 21/11/12
GROUND ELEVATION (mAOD) ____ **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION ---
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NW-SE
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION
	80-100		RAD	83		0.20	MADE GROUND: Grey-brown coarse sand and fine to coarse, angular to sub-rounded gravel and cobbles of mixed lithology including sandstone, clinker, pottery, slate. brick, shell fragments, rubber seal, glass.
	80-100	70-100	RAD	650 & 450 & 89		0.25	
			RAD	78		0.27	MADE GROUND: Thin dark-grey to black ashy sand and fine to medium angular clinker gravel. .... two artefacts from 0.2m bgl, RT30 identified radium-226, dose rate 276.7 nSv/hr (650cps & 450 cps).
							Orange-brown SAND and fine to coarse sub-angular to sub-rounded GRAVEL and cobbles of sabdstone.
1						0.95	Grey very sandy clayey SILT and a little fine to medium sub-angular gravel, with whole mollusc shells and shell fragments.
						1.20	Light grey fine to medium SANDSTONE.
	140-210	80-95					

Trial pit terminated at 1.2m bgl. due to sandstone obstruction. RT30 identified potassium-40 at 1.2m bgl.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. No groundwater enountered.

TRIAL PIT NUMBER TP3/3/103

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316438 N:683210
DATE STARTED 20/11/12 **COMPLETED** 20/11/12
GROUND ELEVATION (mAOD) 3.834 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 1.85 m / Elev 1.98 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NW-SE
AFTER EXCAVATION 1.85 m / Elev 1.98 m

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
	60-70					
	60-90	60-70	RAD	63		MADE GROUND: Grass over dark grey sandy medium to coarse GRAVEL (Type 1 Fill).
						0.20 3.63
	100-160	60-100				MADE GROUND: Brown and grey silty sandy CLAY and a little fine to coarse sub-angular to angular gravel, occasional brick, sandstone boulder, rare plastic (grout tube nozzle?), shoelace? at 0.6m, metal circular clip, wood.
		80-110	RAD	65		0.65 3.18
	160-200	80-100	RAD	75 &		MADE GROUND: Grey-brown coarse sand and fine to medium angular to sub-angular gravel of mixed lithology, including clinker, pottery, glass, brick, possible asbestos cement tile, mollusc shell, circular gasket/sea;/
			BULK	3500		.... sand grain artefact from 0.6m bgl, RT30 identified radium-226, dose rate 1.1 uSv/hr (3500 cps).
1						
	270-810	90-130	RAD	550		.... artefact from 1.2m bgl 550 cps.
			RAD	11000		.... artefact from 1.4m bgl 11 000 cps.
			BULK	90		
						1.90 1.93
2						2.00 Dark grey very sandy silty CLAY and a little fine to medium sub-angular gravel with whole shells (mollusc). 1.83
	212	90-140	RAD	85		Trial pit terminated at 2.0m bgl. due to pit collapse.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Groundwater standing at 1.85m bgl.
5. Artefact recovered from 0.1m bgl, 10m to south of pit at GR: 316449 683212.

TRIAL PIT NUMBER TP3/3/104

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CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316433 N:683202
DATE STARTED 21/11/12 **COMPLETED** 21/11/12
GROUND ELEVATION (mAOD) 3.981 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 1.70 m / Elev 2.28 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION NW-SE
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION	
	75-100					0.05 MADE GROUND: Grey sandy medium to coarse angular GRAVEL (Type 1 Fill).	3.93
	100-150	90-120	RAD	85		0.15 MADE GROUND: Loose black sandy ASH and fine GRAVEL (no pottery, glass or clinker).	3.83
			RAD	80		MADE GROUND: Grey-brown sandy gravelly CLAY. Gravel is sub-angular to sub-rounded, much sandstone, some cobbles, rare brick and tarmac fragments.	
	160-200	100-130				... becoming brown sandy clay below 0.6m.	
1						... concrete? boulder at 0.8m in south-west of pit. Pockets of soft greenish grey clayey sandy silt and a little fine to medium sub-angular to sub-rounded gravel.	
	165-250	90-140				... RT30 identified potassium-40 at 1.4m bgl.	
						1.60	2.38
	240-290	90-130	RAD	86 & 550		MADE GROUND: Grey-brown coarse ashy SAND and fine to medium angular GRAVEL of mixed lithology, including clinker, occasional pottery, possible asbestos cement board, glass (angular), possible wire, rounded glass, NAAFI pottery, drgraded rubber hose fragment, blue-green possible battery waste, rare wood at 2.2m bgl. ... artefact from 1.6m-2.2m bgl RT30 identified radium-226 176.4 nSv/hr (550 cps).	
2	360	90-160				2.20	1.78
			RAD	86		Grey clayey very sandy SILT and whole shells (molluscs) and shell fragments. (Estuarine alluvium).	
	80-140					2.50	1.48

Trial pit terminated at 2.5m bgl. due to groundwater ingress.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Groundwater seepage at 1.7m bgl.

TRIAL PIT NUMBER TP8/1/105

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316333 N:683006
DATE STARTED 21/11/12 **COMPLETED** 21/11/12
GROUND ELEVATION (mAOD) ____ **TEST PIT SIZE** 2.9m x 2.9m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 0.60 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION N/A
AFTER EXCAVATION ---

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG	MATERIAL DESCRIPTION
			RAD	68		Light brown/buff coarse SAND and fine to coarse sub-angular to sub-rounded cobbles, boulders and gravel of mixed lithology including sandstone.
	120-260	80-90	BULK		0.30	Possible dispersed low activity point sources throughout.
	250-550			50		Orange brown silty sand coating to boulders and cobbles at 0.3-0.6m bgl. Pit widened to south-east.
	220-350	130-170			0.60	... large boulder of sandstone, dark grey to black staining on rock surface at 0.4m bgl (possible organic). Trial pit terminated at 0.6m bgl due to bedrock.

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Groundwater seepages from ground level to 0.6m bgl.

TRIAL PIT NUMBER TP3/3/106

amec

CLIENT Defence Infrastructure Organisation
PROJECT NAME Dalgety Bay
PROJECT NUMBER 23218
CO-ORDINATES E:316434 N:683205
DATE STARTED 21/11/12 **COMPLETED** 21/11/12
GROUND ELEVATION (mAOD) 3.928 m **TEST PIT SIZE** 3.0m x 0.5m
EXCAVATION CONTRACTOR GTS
GROUND WATER LEVELS:
EXCAVATION METHOD Trial Pit
AT TIME OF EXCAVATION 2.10 m / Elev 1.83 m
LOGGED BY KEYWN
AT END OF EXCAVATION ---
MAIN AXIS ORIENTATION SW-NE
AFTER EXCAVATION 2.10 m / Elev 1.83 m

DEPTH (m)	IN-SITU COUNT RATE [Downhole] (cps)	EX-SITU COUNT RATE [Spoil] (cps)	SAMPLE TYPE	SAMPLE COUNT RATE (cps)	GRAPHIC LOG		MATERIAL DESCRIPTION	
	75-95					0.05	MADE GROUND: Grey sandy fine to coarse angular GRAVEL (Type 1 Fill).	3.88
						0.10	MADE GROUND: Purplish-brown fine to coarse angular GRAVEL (Type 1 Fill).	3.83
	100-130	70-100					MADE GROUND: Grey sandy fine to coarse angular GRAVEL (Type 1 Fill). Band of black fine	
						0.40	ASH at 0.20-0.25m bgl. in north-east of pit.	3.53
	160-180	90-120					MADE GROUND: Grey-brown sandy gravelly CLAY. Gravel is fine to coarse sub-angular much sandstone, occasional kerb stones, drainpipe.	
1			RAD	78				
						1.40		2.53
	250-350	100-160	RAD				MADE GROUND: Grey sandy ASH and fine to coarse angular to sub-angular GRAVEL of mixed lithology, including clinker, pottery, brick, glass (angular), possible asbestos board, wire gasket, whole bottle. Muliple active clinker point sources at 1.8m bgl; recovered artefacts: 430 cps, 2100 cps & 6200cps	
		100-140	RAD	500 430, 2100 & 6200				
2						2.10		1.83
			RAD			2.20	MADE GROUND: Dark grey to black coarse ASH and angular medium to coarse clinker, gravel, pottery, brick, occasional whole glass jars. RT30 identified Radium-226, dose rate 95.1 nSv/hr	1.73
		100-130	RAD			2.50	Bluish grey sandy silt and occasional fine sub-angular GRAVEL, whole mollusc shells. (Estuarine alluvium).	1.43
							Trial pit completed at 2.5m bgl.	

NOTES: 1. All readings taken with 2" NaI probes (Ludlum or RT30 rate meter).
2. Dose rates recorded with RT 30 instrument by SEPA.
3. Sample type 'RAD' indicates sample obtained for possible future radiochemical analysis.
4. Groundwater standing at 2.1m bgl.